

PURCHASED

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**HISTORICAL DOCUMENTS
OF
EASTERN INDIA**

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HISTORICAL DOCUMENTS
OF
EASTERN INDIA
(in Eight Volumes)

by
ROBERT MONTGOMERY MARTIN

Volume-II
SHAHABAD

CAXTON PUBLICATIONS
DELHI

28/11/20

COMPUTERISED

954.1
M 382 R
V.2

First Published : 1838
Reprint : 1990

THE ASIATIC SOCIETY

700 016

633/9 DATE 5.9.02

SL NO. 017035

Published by : **CAXTON PUBLICATIONS**
B-3/53, Ashok Vihar, Phase-II,
Delhi-110 052

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Printed at : Mehra Offset Press, Delhi.

DEDICATION

*To the Chairman, Deputy Chairman and
Court of Directors
of the
Honourable East India Company*

HONOURABLE SIRs,

In soliciting your permission to place before the British Public the official survey of one of the richest territories in Asia, I have been acting in conformity with the whole tenor of my life for the last ten years in India and in England, of which the leading principle has been the consolidation and prosperity of the distant dependencies of the Empire. The survey described in the following pages had its origin in the laudable anxiety of your Honourable Court to enquire into the condition of the people, and the resources of the country, over whose affairs you were required to preside; and as the first step towards the attainment of good is the investigation of truth, it was in accordance with your wonted principles that this important enquiry was undertaken. From the mass of materials which you have had the goodness to permit me access to, I have culled, digested and arranged this work in the ardent hope that it may tend to awaken every serious thinking mind in these realms to the great responsibility which is involved in the possession of British India.

The history of that magnificent portion of Asia is without a parallel in the annals of the world, and scarcely less extra-ordinary is the rise and progress of that respected authority whom I have now the honour to address. Under the munificent auspices of one of England's wisest sovereigns you commenced a mercantile career—which her noble patriotism fostered with all the prophetic feelings which characterized our Virgin Queen. Amidst the difficulties of jealous rivalry—subject to the weakness or arbitrariness of successive rulers—and controlled by various circumstances,

your career was steadily onward, until from humble merchants struggling for existence you became the governors of one of the fairest portions of the earth. By what means and under what influencing motives you thus rose to supreme power over a country nearly as large as Europe, and peopled by an *hundred million* of human beings, I have elsewhere demonstrated; and time, the rectifier of error, will remove the calumnies which have been promulgated against the East India Company, and do justice to your principles and actions.

Peace, the precursor of so many blessings, was, through your instrumentality (so far as the records of ages extend) first established in Hindostan, and the bondage of the body, and the tyranny exercised over the mind, under which myriads had sunk, were exposed, with all their desolating consequences, to the chastening influence of a christian government.

But great as have been your past merits, they fall far short of the glorious honours which await on your future proceedings. It is easier to subdue than to govern; to administer is less difficult than to legislate; and to consolidate dominion requires more mental and moral power than its acquirement.

By the appointment of Divine Providence, a small island in the Atlantic has become mistress of vast and fertile territories in Asia, and you have been made not only the instruments for their acquisition, but divested of the mercantile character to which you owe your origin and progress, the executive power for their protection and well being has been confided to your Honourable Court. Alas ! it is but too apparent that national or individual public responsibility is not sufficiently attended to in this professedly Christian country, and although this reproach attaches less to your Honourable Court than to other constituted authorities, yet am I unwilling to permit the present opportunity to pass without remark. The omniscient disposer of affairs would never have permitted our occupation of India for the mere sake of individual profit, or national advantage : it is a sacred trust reposed in England for the welfare of millions, and according to the exercise of that trust, will be the apportionment of future justice. Yet with what culpable apathy and criminal indifference has England heretofore regarded India ! By some it has been viewed merely as a medium for mercantile exchanges, by others as a valuable source

of patronage; not a few consider it as a grand field for the exercise of war or politics; and many deem it only a useful territorial appanage to enable England to maintain the balance of power in Europe.

Unquestionably beneficial as all these advantages may be to England, they have however but a secondary reference to India—and none at all in regard to the future state of millions of men;—whereas, if a moral responsibility for the trust reposed in Britain were felt and acted on, the most valuable and permanent results would ensue, and produce equal good to both countries now and for ever. Heretofore it must be admitted the great duties of your Honourable Court have been directed to the establishment of peace and the maintenance of our authority over the acquired provinces, but the following pages demonstrate what a new and truly noble field presents itself for the exercise of the power with which you are invested. The details which this survey exhibit would be painful to contemplate were there no prospective remedy. In the official returns thus made to your Government you behold a vivid picture of the physical, mental, and moral condition of the inhabitants of the fertile territories subject to your sways, you can trace in the small amount of the wages of industry,—in the scantiness of their food and clothing,—in the wretchedness of their tenements,—in the general poverty of their labour,—in the revolting superstition which pervades their minds,—and in the immorality which debases their nature—you can in all these combined trace the grievous effect of ages of anarchy and bloodshed, and misrule,—and in viewing their direful consequences, your feelings must be harrowed by the pitiable spectacle thus exhibited, while your utmost energies will, I doubt not, be directed to the alleviation and cure of such portentous evils.

The miseries attendant on misgovernment, whether individual or social, are wide spread, of long extended duration, and consequent difficult removal. This truism is fully exemplified in India, and the duties required of England, and of your Honourable Court as her executive power are therefore most momentous. Judging from the past, we may with confiding hope, I trust look forward to the future. Your freedom from commercial pursuits, the judicious selection of men for your Honourable Court, who

are identified with the prosperity of India, and the high moral rectitude which characterizes the East India Company promises most auspiciously for the welfare of the Empire.

It is the duty of every friend to social order—of every patriot who wishes to see his country's fame and prosperity based on the rock of justice—of every Christian who desires the extension of the only true civilizing principles of the Gospel, to give to your Honourable Court a cheering support in the responsible station which you fill. On that station the eyes of every friend to mankind are fixed: for, on the fulfilment of its duties will depend the happiness of millions of our fellow creatures.

That the Almighty Disposer of events may in his mercy and goodness influence your thoughts, guide your judgments, and attend your actions, is the sincere desire of—

Your obliged and faithful servant,

London, February, 1838

ROBERT MONTGOMERY MARTIN

INTRODUCTION

The present volumes of the official survey of 'Historical Documents of Eastern India' includes the Zilahs or districts of Behar and Patna, Shahabad, Bhagalpur, Gorakhpur, Dinajpur, Puraniya, Ronggopur and Assam. The particulars given of the social state of the numerous inhabitants of these fertile and important Provinces are equally, if not more valuable and interesting with those detailed in the preceding volumes. There may be some individuals who cannot appreciate the merit of the minutiae which this survey presents, but the philosophic mind will arrive at juster conclusions respecting the character and condition of the people by means of this very minute specification, than by any other mode of ratiocination. The merchant and the capitalist will be also the better enabled to judge of the capability of the country for the speculations of commerce, and the employment of capital and dependent as the proprietors of the East India Company now are for their dividends on the territorial revenue of India, the circumstantial account of the rent, tenure and produce of land—and the management of public and private estates, will prove of inestimable value. Since the appearance of the preceding volume, many old Anglo-Indians have declared that this survey has presented them with a clearer view of the actual frame-work and anatomy of society in the East, than any thing they saw or heard during their sojourn in Hindostan. The famine now devastating the Upper Provinces of the Bengal Presidency, gives an additional, painful interest to the details which this survey presents of the physical condition of the people.

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CHAPTER I.

AREA, TOPOGRAPHY, RIVERS, LAKES AND MARSHES, METEOROLOGY, &c.

The greatest length of this district in a direct line is along the Son, and extends about 117 British miles. Its greatest width, crossing the above line at right angles, from the Karmanasa, where it begins to form the boundary on the plain between the provinces of Behar and Banaras and the Son, a little north from Rautas Gar, is about 52 miles. According to Major Rennell, its southern extremity on the Son is in about $24^{\circ} 31'$ north latitude, and its northern point near the Dewha is in about $25^{\circ} 52'$. Its eastern extremity on the Ganges is about $3^{\circ} 21'$ west from the meridian of Calcutta, and its western extremity on the Son is extended $1^{\circ} 32'$ further in that direction. It contains 4,087 square British miles, and, although long and narrow, is tolerably compact, except that it sends a projecting corner across the Ganges, and that a portion of Merzapur projects into its middle across the Karmanasa, and another across the Ganges.

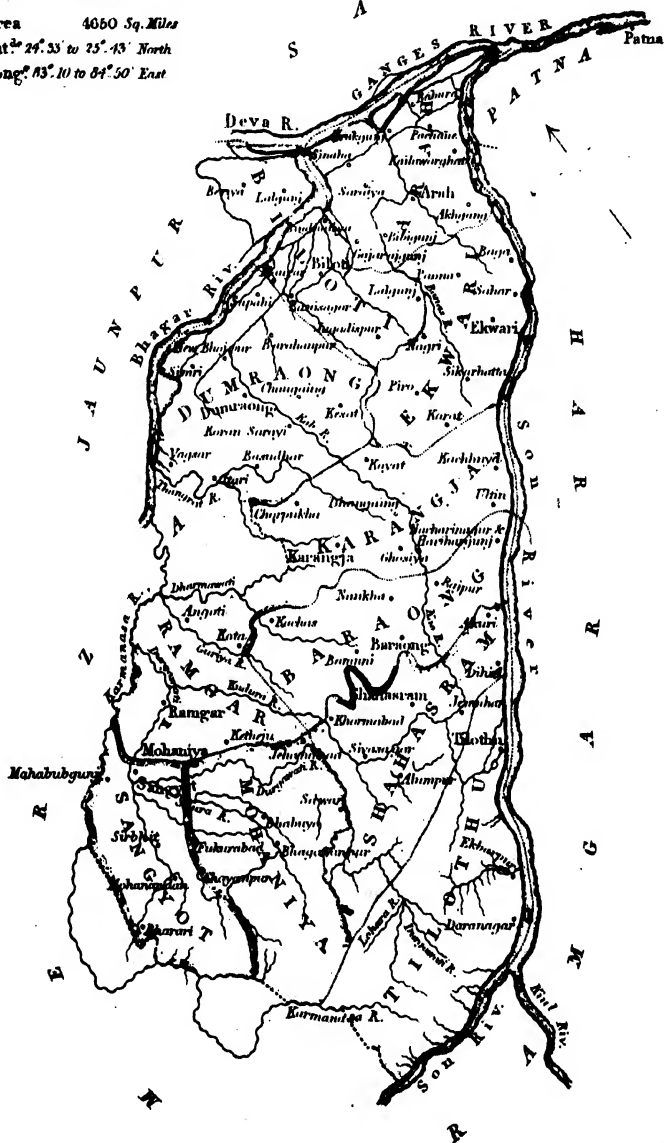
SOIL.—On the lowlands there is very little barren soil absolutely unfit for the plough, and I nowhere heard the calcareous nodules accused of producing sterility; but in this district they are seldom mixed with the surface; nor do I recollect seeing any of them except on the banks of torrents, or towards the bottom of wells. Close to the hills in most

DISTRICT OF SHAHABAD.

Area 4660 Sq. Miles

Lat^d 24° 33' to 25° 43' North

Long^d 83° 10' to 84° 50' East



parts the soil is excellent, nor is it broken into ravines, except in a very few of the recesses among the mountains. This broken ground is, indeed, in a great measure confined to the vicinity of Shergar, especially in the great recess west from that old fortress, and to that of the small hills which are scattered along the bank of the Son in the upper part of its course. In the same vicinities, and in the great recess north from Rautasgar, a good deal of the level land is destroyed by stones, gravel, and sand; but in general the soil, within a few yards of the most barren rocks, is excellent. At a distance from the hills a very little land, in detached spots, is too sandy for use, and in some even it consists of barren gravel; but, except in the division of Ramgar, this barren land, so far as I could judge, nowhere in any one division amounts to a square mile. The Ganges in this part seems to deposit only a rich mould; and it is the west wind alone that blows up the sand from the extensive channel of the Son, so that this district in a great measure has escaped from destructive depositions of sand. Towards the Son the natives indeed talk of having much Ush, Ushar, Reher, and Bala land; but except a few small plots of Reher, too much impregnated with soda, and these not near the Son, and the few sandy spots, all seems abundantly capable of cultivation, and a great part denominated Ush, Ushar, Reher, and Bala, is abundantly under crop.

This light sandy soil extends in most places 3 or 4 cos, from the Son, and occupies a great part of the country in that direction, except towards the mouth of the river, where the soil is richer. This soil may be divided into two kinds. One is quite free, consisting of fine sand mixed with a loose mould, and is usually called Bala, Ush, Ushar, and Reher, between the application of which terms I could not trace any difference. The other consists of a very tenacious clay intermixed with a great deal of coarse sand. In dry weather this forms a clod abundantly hard, so that then it may be readily mistaken for clay; but, when moist, it dissolves into a mud, which has no sort of tenacity, and readily parts with the water. Both soils, when kept moist, are abundantly productive, but, without much labour bestowed on irrigation, they will produce only some pulses, that are sown in the rainy season. In these districts a free mould forms every

where a considerable portion of the soil, and in the lowlands is never of a red colour. It is generally of various shades of ash; when it inclines to yellow, as in some places is the case, it is called Gorangth, but the same term is applied to clay, when of the same colour. When the mould is quite free, and in a dry state has little tenacity, it is called Dhush, Pairu, and Dorasa; when it contains a portion of clay, it is called Sigat. This distinction, however, is not very exactly observed, and all the four terms are sometimes applied indiscriminately to soils apparently quite similar. This free mould in the inland parts requires a good deal of irrigation in the dry season; but with that is very productive, and even without it linseed and several kinds of pulse come to tolerable perfection, while all the crops that grow in the rainy season succeed well; and near the Ganges, even in the dry season, it produces every grain in luxuriance, with no watering and almost no trouble.

The clay lands are, on the whole, reckoned the most valuable, as they are the most retentive of moisture, and produce wheat, barley, and all winter crops without irrigation; except Chana, however, lentils and linseed, all the crops when watered are more luxuriant, even on the best clays, nor did I even hear it alleged, as was done in some parts of Behar, that watering did harm. When the clay soils are of the various shades of ash, they are called Karel and Kebal; when of a yellowish tinge, as I have already mentioned, they are called Gorangth; nor in the lowlands are there on the surface any soils of a red colour. The hills have much more soil than those in any of the districts hitherto surveyed. The surface of the table land, of which their great mass consists, is indeed much diversified by hills and vales, and in many places is too steep or too rocky for the plough; but there is, also, a good deal of land abundantly capable of being laboured. In general this is of a reddish colour, like the soil which in the south of India is considered as best adapted for the Eleusine Corocanus: and although not very stiff, this is pretty retentive of moisture, so that, where cultivated, even in the dry season, it produces several crops without watering. These crops are not good; but this appears to be more owing to want of skill in the farmers than to the fault of the soil; for maize and arahar are probably the crops best fitted for such

land in this climate, and hitherto these have not been introduced.

ELEVATION.—The hills differ a good deal in their appearance and structure from those in the districts hitherto surveyed. Although their sides are perhaps still more abrupt than is usual towards the east, their summits are comparatively level and smooth. The most common height, I conjecture, without any guide, however, but their appearance to the eye may be about 500 feet perpendicular; and a considerable portion of this height, generally from about one-third to two-thirds, and commencing near their summit, consists of a perpendicular or even overhanging naked rock, composed of horizontal layers, or strata like a regular built wall. In some places this perpendicular wall rises to the very summit; in others there is above it a short rocky slope, on which are scattered tufts of long grass and stunted bushes of the most parched appearance. At the bottom of the perpendicular wall is a slope, generally very steep, and rising usually from the plain at about an angle of 60° or 70° . This slope, on the surface at least, consists of confused fragments of rock, generally, however, intermixed with a good deal of soil, and covered with trees and bamboos. Neither grow to a magnificent size; but the trees, when not stunted by frequent cutting, reach the size that is common in the puny plantations of our British isles. The small detached hills, according to their length, terminate in a narrow ridge or point, and the bare rocky wall towards their summit is thus often exposed quite naked in the most fantastic forms, but the great mass consists of one elevated table, surrounded on all sides by the abrupt precipice as above described.

The boundaries of this table land are irregular, and in some places, are deeply indented by narrow recesses or glens, which are of the most picturesque but savage grandeur, being surrounded by the lofty rocky wall above described, with its base fringed with woods. In the dry season everything however is parched and dismal, nor is their savage ruggedness enlivened by the clear streams and winding lakes, that soften the aspect of the Scottish highlands. In the rainy season the verdure of the trees, and the roaring of the torrents swollen to a tremendous power, must render these recesses truly magnificent; but then they are the abode of disease, and

from the enlargement of the torrents are scarcely penetrable. These torrents generally fall down the precipice at the deepest angles of the recesses, where the rock is from 100 to 200 feet in perpendicular height. Some of the *ghats* or passages, by which there is the easiest access to the table land, are from these recesses; but never at their farthest extremities, which as I have said, are always occupied by some torrent falling over a perpendicular, or more often an overhanging rock. The *ghats*, that are situated in these recesses, are always on the face of some part projecting between two arms of the recess. By far the greater part of them are of exceedingly difficult access, and might be defended by small bodies of men against great numbers; and, where it has been necessary, on account of the fortresses erected on the table land, to render the ascent more easy, recourse has usually been had to forming stairs. Winding roads might no doubt be readily constructed, which would have given easy access to loaded cattle; but, in the state of military architecture, when these strongholds were erected, such roads would have been considered as weakening the defences. Although all the *ghats*, which are numerous, are of very difficult access, yet by several of them, oxen carry up small loads of grain and salt, and bring down much more grain and some timber. Two of the most frequented are Sarki and Kariyari, the one near the south-west boundary of the district, and the other in the deep recess north from Rautas. I went up the one, and down the other, with some necessary baggage and small tents; but had not the roads been reported much easier than I found them, I would not have made the attempt. Kariyari ghat is the route, by which Colonel Crawford led a military detachment with guns to take Vijayagiri (Bidzigar R). He no doubt, employed many pioneers to smooth the way; but even with their assistance the enterprize must have been difficult; for the pass, although shorter, is far more difficult than any of those which I saw leading up to Mysore. Two passes on the northern face of the hills are much easier, and one of them was much nearer to Vijayagiri than Kariyari is; but they were probably unknown to Colonel Crawford, the geography of these parts being still very imperfect. The one is about two miles south from Shahasram, and is called Khuta ghat.

The other is on the right side of the recess, through which the Karmanasa runs, after it falls from the precipice called Chhanpathar, at the very western boundary of the district. Both passages are no doubt very rugged; but the declivity in both is moderate, and smoothing the rock is almost all, that would be required at Khuta ghat, to render it a tolerable passage for carriages. Two bridges in addition, over two very deep and wide torrents, would be required on the passage near the Karmanasa; but even this is vastly easier than either Sarki or Kariyari.

Above the rocky boundary by which this hilly region is surrounded the table land is not level, as the name, which use has consecrated for such situations, would strictly imply. It is, in fact, very hilly; but the hills are detached, of comparative little elevation, and not so steep as the grand boundary of the highland region. On this account roads of tolerable easy access, and which might be rendered good, traverse it in many directions. The greater part of the space between these smaller hills consists of swelling lands, in some places, as I have said, filled with rocks and stones, so as to be unfit for cultivation; but in many places it very much resembles Karnata in soil and appearance; and no doubt, as the climate is more favourable, is capable of being rendered equally productive. It has, however, been very much neglected. Immediately around the small villages scattered through this waste a few fields are enclosed by hedges of dry thorns, and, receiving some manure, are cultivated for wheat, barley, and mustard, and, so far as the fields can be well manured, these perhaps are the most suitable crops; but, as in the present system of Hindu agriculture any considerable supply of manure is unattainable, other crops should be taken. A great deal of this land might, by reservoirs, be converted into rice fields, and the remainder would answer very well for ~~maize mixed~~, as in Bhagalpur, with arahar, kodo, or maruya, all very valuable crops. The small rents hitherto exacted from the inhabitants of the hills have not however proved a sufficient excitement to industry; and, except the few fields round their houses, swelling lands have been almost totally neglected. They have cleared a considerable space round each village for pasture, and in the rainy season it yields abundance, but in the dry produces

very little, although it is ornamented as well as shaded by trees of the mahuya, mango, banyan, and pipal. This land is kept clear by small parts being ploughed after long fallows, and sown with pulse; but the produce either of this or of the trees is of little importance. The chief attention of these highlanders is paid to the cultivation of some very narrow vallies that wind through the swelling grounds, and, although seldom above 100 yards wide, run to considerable lengths. These contain numerous springs of water, by which they are admirably fitted for rice, and produce it more luxuriantly than any where that I have seen, except the borders of Virbhum and Bhagalpur, and the trouble of cultivation is next to nothing. Although three-fourths of the whole cultivation on the table land consists of this description of land, its whole extent is trifling, and, notwithstanding its value, some part is neglected.

The table land is on the whole highest towards the south; but it is there less broken by hills and rocks than its low part toward the Gangetic plain. The springs there are also more numerous and copious, so that on the whole the southern parts are the most valuable; yet, owing to a low assessment, having less incitement to industry, the tribe of Turkan, which occupies the whole southern half of the table land, contains only 50 occupied villages, while the three northern tribes amount to 70 villages. The small hills near Naukha are the only ones detached at any considerable distance from the great mass; but they are entirely of the same nature and appearance. The low country is on the whole very flat, especially towards the north and west; but even there it is scarcely any where what is called dead level; and near the Son, and for a little way north from the old channel of the Ganges at Bhojpur, there are some considerable swells, generally of a poor sandy nature, and very much neglected. The whole space between the hills and this old channel of the Ganges, which passes immediately north of Bhojpur Biloti and Arah, is in fact a plain fitted for rice, but no where subject to be regularly flooded. When extraordinary falls of rain happen, some portion is liable to be covered for two or three days, but this does not happen every year, and the periods when such floods occur are quite uncertain. They are always supposed to do injury, and in fact often

overwhelm the crops of rice. This seems to have led to an opinion that the water of the Son river is highly destructive to vegetation, which is very generally asserted and believed throughout the district, and is often employed as an excuse for the neglect of irrigation, which might be procured from that river. This quality of the Son water was so often and universally insisted upon, that I began to be staggered when on the upper part of the river's course I discovered some industrious persons watering their lands with the utmost success, although the soil was very poor. The proportion of land liable to be injured by these occasional floods will be seen in the second statistical table.

The highest parts of this low country, except the poor swells above mentioned, have been usually selected for the situation of the villages, and the immediate vicinity of these being let for a money rent, is very carefully cultivated, and, except the fields reserved for sugar and cotton, is indeed almost the only land that is so in this district. The crops are very luxuriant, being carefully watered. This land is called Gongyer or Korar. The latter name implies its being cultivated by the Kairi, a tribe eminent indeed for industry, and which probably introduced this valuable mode of cultivation; but these Kairi are not now the only persons by whom it is employed.

Where the assessment has been so high as to excite industry, all along the gentle declivities, at some distance from the villages, have been drawn ditches, which serve as reservoirs, receiving the water from above, and collecting it for the supply of the fields below in occasional droughts. The fields below are, therefore, usually cultivated with rice, while those between the reservoirs and the villages are cultivated with crops that come to maturity in spring, and do not require so much water as rice does. The lower parts are usually called Keyari, or land divided into plots for preserving water, as usual in the cultivation of rice; but in some parts it is called Palo. The higher parts above the reservoirs are here most usually called Tar, a term which in Behar is given to low lands that during the rainy season are entirely covered with water. The reason of this strange difference in the application of the same word seems to be, that immediately above the reservoir a certain space in the rainy season is

always covered with water. This is cultivated as the water is let out, and, being the most productive, has communicated its name to the whole; but in many parts the term is now applied to signify the highest and most sterile parts of the swelling lands, where no reservoirs were ever constructed.

Both these descriptions of land, the Keyari and Tar, are usually let for a share of the crop, and are generally very carelessly cultivated, while in many parts the forming or repairing of the reservoirs have from various causes been neglected, and there the crops so often fail that much has either been altogether neglected, or has been allowed to run waste. The highest lands immediately adjacent to the villages, and these naturally the poorest, being cultivated with care, are therefore the most productive, and in unfavourable seasons are the chief resource for the alleviation of distress; but it is alleged that the stock usual for a plough would not allow a man to cultivate; in this manner alone, a quantity of land sufficient to pay the high rent demanded, and to furnish him with subsistence. In the intervals of labour he therefore cultivates in a careless manner a great extent of the other two kinds of land; and, when the season is tolerable, his share of the crops supports him in abundance, especially the rice, where the landlord keeps the reservoirs in tolerable repair, as in that case the crop seldom fails, and is generally more abundant than could be well expected. Where the reservoirs are neglected, the villages stand at great distances, and the ground, except in their immediate vicinity, whether high or low, is only cultivated occasionally, and with poor crops of pulse or linseed, that do not require watering.

North from the old bank of the Ganges, which would appear to have formerly run close to Bhojpur, Biloti, and Arah, and nearly bounded on the south by the great road from Patna to Vagsar (Buxar R.) which runs along the same bank, the whole country near the Ganges is regularly flooded; and, except just the villages and plantations situated on the highest spots, usually continues under water for four months. When the floods rise high, as they usually do two or three times every year, the water enters even into the plantations, but does no injury. Although it produces no rice nor sugarcane, this is by far the most valuable part of the district; for the crops never fail. The river deposits a fine mould,

and scarcely ever covers a field with sand, as is usual farther down. When it retires, the country gets a very slight ploughing, and is sown with wheat, barley, pease, and other grains less common in Europe, which, without weeding, manure, or any other expense, produce with very great luxuriance, provided there is rain towards the end of October, to facilitate the ploughing. If this rain should be wanting, the crop may be a fourth less than when it assists the farmer's labour; but he is never left altogether destitute, as often happens in rice countries. The fertility, together with a ready market, the fondness of the Hindus for the sacred stream, a high assessment, and money rent, have notwithstanding its want of salubrity, rendered this the most populous and thriving part of the district. This favoured portion is called Hetha or lowlands, while the plains above the old bank of the Ganges are called Uparar or uplands.

RIVERS.—*River Karmanasa.* This is a torrent of considerable size, which receives many branches, and was for some time considered as the boundary of the British possessions in the north of India. Now it runs through the centre of their northern presidency. It is held by the Hindus in the utmost abhorrence, and no person of pure birth, who has come from a distance, will drink its water, nor even touch it; so that several poor people live by carrying the Hindoos across its channel, which in the dry season does not admit of a boat. On this account, Ahalya Bai, the widow of Holkar, attempted to build a bridge of stone, but the work was abandoned. No Brahmans live close to this hated stream; but many Sudras of pure birth reside on its banks, which in some parts are fertile; and these, finding the doctrine of its impurity very inconvenient, make no scruples either to drink or to touch its water. The reason assigned for the impurity of this river is as usual abundantly extravagant. There was in the family of the sun, in the twenty-fifth generation from Marichi, the common ancestor of that illustrious race, a certain Raja Trisanku or Satyabrata, who was a monstrous sinner, having murdered a Brahman, and married a step-mother. A good natured saint took compassion on this sinner, and removed all his impurity by collecting water from all the sacred streams in the world, and washing him in this powerful bath, which was made on the place

from whence the Karmanasa (deprived of virtue) has ever since flowed. This is near the village Sarodag, close by the southern side of the table land, among some stones above a rice field. The Karmanasa issues from a little fountain called Sarmanchuya, and immediately forms a fine rapid streamlet, which, notwithstanding its horrible impurity, is as clear as crystal. In this part of its course it never dries, and in the end of December, when I crossed it, fills many fine pools in its rocky channel, while the streams between are copious and rapid. Both abound in small fish. In this state it passes north-west about 12 miles, through the lands of the Turkan tribe of Kharwars. It then passes about five miles farther in the same direction, and there forms the boundary between the Kharwars belonging to this district, and those of Vijayagiri, who are in the district of Merzapur. The river then enters that district entirely; but, after a great sweep to the west, returns to the boundary, 11 miles north-west from where it entered Merzapur. There it receives a smaller torrent named the Gongroongt, which rises by two sources in the country of the Rajoyar tribe of Kharwars; and, coming from the east to the boundary of Merzapur, bends to the north-west along the limits of the two districts, for about eight miles, until it joins the Karmanasa.

After this junction, the Karmanasa runs northerly along the boundary for about two miles, when it is precipitated down an immense rock named Chhanpathar, at the extremity of a narrow recess called Karohar. The channel of the Karmanasa above the fall appeared to me to be about 300 feet wide, and the rock, over which it falls, may be 100 feet in perpendicular height. When I saw it in the end of February, the stream was inconsiderable.* The recess called Karohar Kho extends about five miles in length, and the river there continues to form the boundary between the two districts. The upper end of the recess is so narrow, as to be entirely filled by the channel, which in some places is filled from side to side with deep pools, so that the natives seldom, if ever attempt to reach the pool at the bottom of Chhanpathar. It is very large and deep, as I saw from above; and its water, although it appears green, is evidently

* In the rainy season the waterfall is very grand.—[Ed.]

very clear, as I could see the rocks in parts of the bottom. In the lower part of the glen there is some fine pasture for buffaloes; and the water, which continues to appear green from above, seems to be nearly stagnant, although in many parts it is deep. Immediately on leaving this glen the Karmanasa takes a very long sweep into the Merzapur district; but returns to the boundary about 14 miles nearly north from the mouth of Karohar Kho. In the end of February the Karmanasa there is in many parts dry, chiefly, I believe, where the bottom is sandy; but in general it passes through a rich clay, very retentive of moisture, into which it has sunk a deep channel, about 150 yards wide; and in such places it contains a little water, which, although nearly stagnant, is not dirty. From where the Karmanasa comes again to the boundary, it runs along that in a north-easterly direction for about 22 miles, leaving however on its left two small portions of this district, and then receives the Durgawati, a torrent rather more considerable than itself.

The source of the Durgawati or Durgauti is about seven miles east from that of the Karmanasa, and in this part of its course it is a rocky channel from 20 to 30 feet wide, containing in December many fine pools, and between them clear rapid streams somewhat larger than those of the Karmanasa. It runs nearly north for about nine miles, when it is precipitated down the rocky boundary of the table land into the head of a deep recess or glen named Kadhar Kho. There it is joined by three other torrents, that like itself rise on the table land of the Turkan Kharawars, and fall down the rocks at the head of the same glen. These three torrents are the Lohara, Hatiyadub and Korhas. The Lohara comes from the west, and rises near a village of the same name, where it issues from the sides of a rice field, by several small springs, which unite, and run east about eight miles to join the Durgawati. The Hatiyadub rises about half way between the source of the Karmanasa and that of the Durgawati, and is a torrent nearly similar, but rather smaller than the former.

The Karmanasa, after receiving the Durgawati, continues its course for eight miles towards the north-east forming the boundary between this district and Merzapur. The remainder of its course, about an equal distance, is entirely within the latter district; but just where it leaves the boundary it re-

ceives a small river, the Dharmauti, which for most of its course serves as the boundary between the circuits of Patna and Benares. About a mile before it joins the Karmanasa, the Dharmawati receives from the south another similar river named the Guriya; which arises in the east end of the division of Baraong, and has a course to the north by west of about 20 miles.

The Ganges, where it enters this district, is evidently a much less considerable river than in its passage along the district of the city of Patna, where it seems to be fully as large as in any part of its course: for the immense stream of the Kosi makes little apparent difference in the main body, and everywhere lower down many lateral branches exhaust all additional supplies, so that from the mouth of the Kosi downwards to the sea, the main channel continues gradually to diminish in width, although, as it approaches the level of the ocean, it contains more water, owing to a diminished rapidity of current. The channel of the Ganges in the western parts of this district, where it in general forms the boundary between Shahabad and Juanpur, is from a half to three-quarters of a mile wide; but the size and rapidity of the stream is in spring much less than at Patna, although it is no where fordable.

The Ganges, after receiving several rivers, is enlarged to the size which it holds at Patna; and its channel, even when uninterrupted by islands, is usually a mile wide. For about 25 miles to the mouth of the Son it forms the boundary between Shahabad and Sarun.

The Son for about 70 miles forms the boundary between the districts of Shahabad and Ramgar. It comes to this boundary from the west, and from its reaching this district, to where it receives the Kiyul from the Ramgar district, it seems to be no where above 1,000 yards wide, and no where less than 600. The rock of some small hills, in a few parts comes to the side of the river, but the channel is no where rocky. It consists of sand with a few pebbles intermixed. In the end of December the stream is 3 or 400 yards wide, but not rapid. It is pretty clear, and in most parts deep. It is then only fordable in two places, but in spring the fords are numerous. In the rainy season the Son is so rapid, that little use can be made of it for navigation. In the

dry season it scarcely admits boats of burthen to pass; but vast quantities of bamboos are then taken down in floats, which are pushed over the shoals. Below the mouth of the Kiyul, the channel of the Son is enlarged, and extends from about 600 to 2,000 yards in width. In the rainy season this immense extent is often filled; but this is only after great falls of rain, after which it subsides, and in 10 or 12 days becomes again fordable. This usually occurs three or four times in the season. Boats of 300 *mans* burthen can come up; but the passage is very tedious, for in the floods they cannot move, and, when the water falls, the stream is divided into many channels, after proceeding up one of which for miles the boatman finds it too shallow, and in order to find deeper water is obliged to return. Boats are therefore chiefly employed to carry down stones and lime; bamboos and timber are carried down in floats, while all other goods are conveyed by land. The other rivers and their branches are the Gupteswar, Yamsoti, Suura, Katane, Kukurnai, Kuhira, Parei, Karat, Kudura, Dhobra, Kasar, and Kao (all these flow into the Karamnasa or Durgawati); the Thongra, Kochani, Bhagar, Garatha, Chhenge, Bhas, Dewha, Tengrahnala, Ganggli, Bana, and Gubri, which flow into the Ganges; the Aosani and Guluriya Kho, which fall into the Son.*

THE CLIMATE is nearly similar to that of Behar and Patna; but instead of the wind changing four times a year, as at Patna, at Arah it changes but twice annually. From the middle of October to the middle of April, west winds are prevalent. From Rautasgar to Arah, along the Son, the wind blows every morning from the south; this and other observations confirming the idea expressed under Behar of the course of the wind following that of the great rivers. The winters are mild, but frost is sometimes complained of.

Dr. Buchanan enters into a minute detail of these rivers too long to be given in this work.—[ED.]

CHAPTER II.

TOPOGRAPHY OF THE DIVISIONS AND HISTORICAL NOTICES.

The monuments of high antiquity in Shahabad, although numerous, are not to be compared in magnitude with those of Behar; nor would it appear to have ever been the fixed residence of any great Hindu monarch. During the Muhammedan government, it seems to have risen to more importance, and appears to have been designed by the last Pathan dynasty for the seat of their government, when that was overthrown by the Moguls.

It is universally agreed that Rohitaswa, a person of the family of the sun, resided here in the fortress called after his name, but vulgarly corrupted into Rautas. Harischandra, the father, and Trisanku, the grandfather of Rohitaswa, are said to have been kings of India, and the latter is said to have been here freed from many horrible sins, as mentioned in the account of the Karmanasa river; but there is no appearance that either king made this the seat of government; nor that Rohitaswa was ever a king, and he is always called the young prince (Kumar). Many persons of the families of the sun and moon, like their ancestors, Marichi and Atri, were Brahmans, and still more were petty chiefs contending for supremacy; and so far as I can judge from weighing the slender documents of Indian history, that have been brought to light, the succession seems to have been almost as badly arranged as among the Scottish princes descended from Heber and Heremon, who long held Ireland in the utmost anarchy. Rohitaswa is still invoked by the vulgar as the deity of the fortress, in which he resided; and it is alleged, that his image continued to be worshipped there, until destroyed by the zeal of Aurungzeb. He was therefore perhaps only a saint, a quality that has raised some of his descendants to the rank of gods; but it is not incompatible with his having been also a king; for Rama, his descendant in the thirty-first generation, was not only a king, but is now worshipped by a large proportion of the Brahmans and of their followers. Except the ruins of the temple, in which

Rohitaswa was worshipped, and which was probably built in times comparatively modern, I find among the ruins of this district no traces of this family. All the works in the fortress are still more modern, and their dates are well ascertained; but the tribe of Kharawars, who still occupy the table land, on which Rautasgar is situated, with many fastnesses of the south, claim a descent from the family of the sun, although this claim, on account of their impurity, is treated with the utmost contempt by their neighbours, who have adopted the laws of purity now in use.

Some ruins are attributed to a Varun Raja, who is said to have lived in the brazen age (Dwapar Yug); but the Pandit of the survey recollects no such person in legend, and the style of the ruins is quite the same with that of the monuments left by the Cheros.

The same may be said of another monument attributed to the same period, and to Ban Asur, often mentioned in the account of Dinajpur,* and considered here as a Dana or Daitya. These Daityas, although descended from a common parent (Kasyap) with the family of the sun, continued the decided enemies of these princes, as well as of the family of the moon. There can be little doubt, that the chief residence of Ban Raja was near Dinajpur; and although his dominions may have extended this length, the style of building so much resembles that of the Cheros, that I am inclined to consider the ruins as a work of that people. Another Daitya, named Karukh, of these remote times, is said to have had possession of the country between the Son and Karma-nasa, which was then called Karukh Des. Few traces however remain of this personage, and some time afterwards a new name, Kikat, was applied to the country.

By far the most numerous monuments in this district, and, next to these already mentioned, allowed to be of the greatest antiquity, are attributed to the Cheros, to whom it universally admitted, that the whole country belonged in sovereignty. In the account of Behar, I have stated as a probable conjecture, that these were the princes of the Sunaka family, who governed in the time of Gautama, that is about the sixth or seventh centuries before the Christian

* See vol. ii. of this work.—[Ed.]

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KOLKATA

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era. This conjecture may perhaps be considered as confirmed by the circumstance, that this district retains the ancient name Kikata, which according to the Desmata of the Sakti Sangam Tantra, extended from Charanadri (Chunar R) to Gridhra Kuta (Gidhaur). It is by many alleged, that the whole of Kikata in more modern times took the name of Magadha, from the Magas, who settled in its eastern parts; but this is here denied, and all the country west from the Son retains the name Kikata, which it anciently held, while the Magas from Sakadwip communicated their name to the eastern portions alone. The Cheros, therefore, I think, probably reigned before this change took place; and the portion of their ancient territories, which they retained, continued to be called by its old name. Several princes of both the great Indian families were called Sunaka, and it may be supposed, that the dynasty so called was descended from one of these persons, and in the account of Behar I have supposed them to have been a collateral branch of the Brihadrathas of the family of the moon; but the Cheros deny this pedigree, and claim the honour of being descended from the great serpent, who is king of hell (Patula), that is to say the devil, which is considered as a very ancient and honourable connection. Like the Daityas this serpent, being descended of Kasyap, is traced to a common origin with the family of the sun. As some of the Cheros remain in this district, I shall have occasion to return to their history, when I treat of them as a caste, and shall here only observe, that, although the monuments in this district attributed to them are numerous, none of them are to be compared in magnitude with Kabar or Budha Gaya, which were probably the abodes of the principal king. Those here seem to have belonged to subordinate chiefs, and some of these appear to have retained their territories long after the supreme kingdom had departed from their tribe. I found here an inscription, dated either in the 120th or 140th year of the era of Vikrama. The Pandit of the survey is not certain which date may be meant; but it is sure, that it must be the one or the other. The inscription mentions Phudi Chandra, king (Nripati) of men, and the tradition of the country universally calls him a Chero; but the Pandit, during a visit he made to Benares, was told by a person on the authority of the Kandarpa

Sanghita, composed by Varaha Mihira, that this Phudi Chandra was of the Sivira or Suir tribe, to whom the expulsion of the Cheros from this district is by most people attributed. Although Phudi Chandra claims the title of king of men, which implies, that he was a sovereign prince, it would not appear that his dominions were extensive, as the ruins of his house and temples, when compared with Giriyak, Kabar, or Baragang, are very small. It must be also observed, that the era is not called Sumvat 120, as is now usually done in all inscriptions meant to refer to the era of Vikrama; but is stated to be in the 120th year of Vikrama; and there is some reason to suspect, that, wherever the name Vikrama is expressed, it refers to a different era from what is in use, where the name is only implied, the latter era commencing 56 or 57 years before the birth of Christ, while the former would seem to commence in the year of our Lord 441. If the inscription refers to the latter era, it is in the A. D. 561; according to the former it would be in the A. D. 63. No mention is made of the Rajas tribe, and the ruins seem to me to be in the style of the Cheros, which is quite different from that of the Siviras.

Although it is generally mentioned by tradition that the Cheros of this district were subdued by a people called Sivira in the Sangskrita, and Suir in the Hindi dialect, yet in several places, and especially from the Cheros themselves, I heard the honour of this achievement attributed to a tribe called Hariho. None of this tribe now remain in this district; but I am told that the Raja of Haldivari in the district of Jaonpur, is a Hariho, and is allowed to be a pure Rajput, of the family of the moon, being descended of Haihaya, 11th in descent from Atri.

The Siviras seem to have been a powerful people; their government having extended not only over the whole of this district, but certainly over a great part, if not the whole of what became afterwards the province of Benares. At this city the Pandit of the survey was informed, on the authority above-mentioned, that the Siviras governed from the 421 to the 911 of Shalivahana, or from A. D. 500 to 990, when their Raja Phudi Chandra was destroyed by Jayadwa, a descendant of Bhoja of Dharanagar, who was no doubt the chief king in India; and persons of the same family with Jayadeva

are still very numerous in this district, and still have large estates. Many difficulties, however, attend this account, with which the date on the inscription of Phudi Chandra can by no possible means be reconciled; and it is not liable to the suspicion of containing a grant of land. It is in general also alleged, that Raja Bhoja had no son, and that at the time of his death none of the Paramarkas being considered fit to be king, the son-in-law of Bhoja was placed on the throne. The Bhojpur Rajas of this district, now chiefs of the Paramarka tribe, indeed, deny these propositions; but they allege that Bhoja Baja in person came here, destroyed the Suir, and founded Bhojpur. The former I think probable, but I see no traces about old Bhojpur to indicate that it was the residence of such a powerful prince; although, as I shall afterwards have occasion to mention, the absence of this indication may be explained. The family alleges that Udayajit, the son of Bhoja, had two sons, Jagadeva and Ranadevar. In opposition to the Benares account, it is alleged that Jagadeva was made king of Gajjara, which went to his daughter, and that Bhojpur was given to Ranadevar as an appanage; but that he dying without issue, various low tribes rose and expelled the Paramarkas, and that they retired to Ujjayin near their former abode at Dharanagar, from whence they did not return until a Muhammedan king encouraged them to destroy the tribes of robbers by which the country was infested. According to the most probable legendary accounts mentioned by Major Wilford, (*Asiatic Researches*, vol. 9, p. 157), Bhoja Raja reigned from about the A. D. 918 to 969, and this date also contradicts the assertion of the Pandit to which I have above alluded. Mr. Bently, indeed, in his valuable treatise on Hindu chronology (*Asiatic Researches*, vol. 8, p. 243), brings the government of Bhoja lower; but in doing this he also depends on legendary stories, and although he proves that an author contemporary with Bhoja, continued to flourish until about A. D. 999, even that will not contradict the opinion of Major Wilford, which seems on many accounts to approach as near the truth as can be expected; for the author above alluded to, although he lived at the court of Bhoja, might have continued writing 80 years after this prince's death; nor is even that supposition required: Mr. Bently has only shown that the year

999 was near the time when the author (Kalidas) wrote, and a difference of 30 years in such cases is next to nothing. It was therefore probably between the years 918 and 969 that the Siviras were destroyed, and as Phudi Char^{da} was probably a Chero, they did not most likely commence their government until some time after A.D. 561; especially if we admit that the Cheros were destroyed by the Hariho tribe. The account given by the Raja of Bhojpur seems abundantly probable; and it is likely enough that on the death of Bhoja, the two grandsons of the king being absent on their estates, the son-in-law of that prince might seize on the government, as is usually stated that he did. Like the Cheros, the Siviras are considered by the present Brahmans as having been an impure and infidel tribe; they have in this district been entirely extirpated; but some, I am told, remain in Benares, and confirm the opinion of the Brahmans by eating pork and drinking strong liquors. There is no doubt, from their temples, that they were strenuous worshippers of Siva, and paid peculiar attention to Hanuman, the favourite of the great god. There is, however, great reason to think that the Brahmans are justified in considering them as heretics; for in one of their temples, attributed by the vulgar to Madan Pala, a Suir Raja, the Pandit found inscribed Magaradhaj yogi 700. Magaradhaj has exactly the same meaning with Madan, and the term yogi implies that he had assumed the order of yogi, the followers of Gorakshanatha, who altogether rejected the sacred order. Although the Siviras are considered by both learned and vulgar to be impure, the latter call them Suryabangsis, a name which it must be observed is usually claimed by the impure aboriginal tribes of the Vindhyan mountains. The carved ornaments and many images of the Suir are quite in a different style from any that I have before seen, and the latter seem to indicate a heterodoxy of opinion in those by whom they were worshipped.

The government of the Paramarka tribe of Rajputs, established in this district by Bhoja, according to the traditions of the family, which claims a common descent with that celebrated prince, and which seem well founded, did not last. He was succeeded as king by a son-in-law, Jayananda, who of course was of a different tribe; and on his death, without issue, A. D. 998, the Paramarkas, it is alleged, being weak,

the kingdom of India was entirely transferred to Chandra Pala, of the Tomara tribe. According to Major Wilford (*Asiatic Researches*, vol. ix., page 157), this prince died in A. D. 1002, leaving his kingdom to his son Mahendra Pala. Raya Sena, brother of this prince, built Delhi A. D. 1050 (*A. R. ubi supra* page 169), and founded a collateral dynasty of six princes, who governed the vicinity of that city. In the year 1170, Anagna Pala, the last of these kings of Delhi, adopted Pithaura Raja, the son of his daughter, and of the Chauhana tribe. Mahendra Pala, the chief king of India, at least in the north, seems to have been succeeded by Bhu Pala, who was king in A. D. 1027 (*Asiatic Researches*, vol ix. page 203). Several other princes of the same family, already often mentioned, succeeded, and they seem to have resided at Kanoj, not at Chandalgar, as I have supposed in the account of Behar; at least so I have been informed at Buddha, or proper (Nij) Kasi, where several monuments of these princes have been discovered, and where they often no doubt came as to the chief seat of religion and learning; nor at Chandalgar can any remains of these princes be traced.

During this space various tribes, partly Rajputs and partly Bhars, had expelled the Paramarkas from this district, and their descendants still continue to possess some estates, and are pretty numerous. In the best periods of native government such acts of violence were seldom considered as of any consequence to the state, and the kings were satisfied if the new occupants paid them the usual limited share of obedience.

Shortly before the final Muhammedan conquest, Jaya-chandra, King of Kanoj, of the Rathor tribe, assumed the title of King of India, having probably destroyed the direct line of the Pala kings. A dispute, concerning this title and other matters, with Raja Pithaura, grandson by a daughter of Anagna, the last of the Delhi branch of the Pala family, brought in the Muhammedans; and the overthrow of Pithaura, in 1192, and of Jaya-chandra, in 1194, placed these invaders in the sovereignty of India.

In the account of Behar, I have given an abstract of the history of this province during the Muhammedan government, and this will sufficiently explain the monuments erected in this district during that period. I have there noticed that, in A. D. 1266, the tribes, who had expelled from hence the

Paramarkas, had become so troublesome that forces were sent from the west to expel these banditti, by whom the roads were infested. It seems that on this occasion the king applied to the Paramarkas, and giving them some assistance, employed them to retake their former inheritance. It is to this era that I refer the foundation of Bhojpur, named after their ancestor Bhoja. They are still the chief proprietors in the district, as I shall have afterwards occasion to explain.

I have in the same account mentioned the history of Sher Shah, born in a private station at Shahusram, and afterwards king of India. He seems evidently to have intended his native country for the seat of empire, and chose as his citadel a strong position on the southern side of the table land. There, on a hill commanding a view of the utmost richness and magnificence, he erected a strong fortress, called after his own name, in which he deposited his family; for during his whole reign he seems to have been constantly employed in the most active pursuits. He is said to have been killed by the bursting of a gun at Goyalihar. His son Selim was equally active. When he died, he is said to have been on the road to his native city, which he had nearly reached with a numerous army, the strength of the empire. His eldest son, Adil, had been left with a large force at Delhi; but the king was accompanied by two younger sons, who were mere lads. On his deathbed he recommended, that as an appanage these should receive the eastern provinces of the empire, and gave them in charge to their mother's brother. During the funeral, it is said, the young princes disappeared, and it is supposed that they were murdered, and buried in his tent, by their unnatural uncle, who, being at the head of the army, immediately assumed the title of king. The disputes between him and Adil weakened the Pathans, and the Mogul Humayun, who had been skulking on the frontier, immediately advanced to the east, and seems to have had little difficulty in resuming the government. He stained his conquest by the murder of the whole family of his adversary, whom he ordered to be thrown down the precipice, on which the fortress where they resided was built. The Moguls always affected to consider Sher as an usurper, although his claim to the government of India seems to have been fully as good as theirs. The writers who lived under the Moguls have not, of course, done justice

to the government of Sher and Selim, who, in whatever manner the former obtained power, seem to have been two of the ablest and best Muhammedan princes that have governed India.

Division under Thanna Arah.—The whole country is well planted and highly cultivated. The plantations consist chiefly of Mango and Mahuya trees, with a very few bamboos and palms, and such in general being the case in this district, need not be repeated. All to the north of the town belongs to the rich inundated land on the banks of the Ganges, which produces chiefly winter crops. To the south is some rice land, but the soil there is rather poor, and the trees are stunted. There are 50 houses of brick belonging to the natives, mostly in the town of Arah; 10 only have two stories, but these are good. There are 200 houses having mud walls and two stories, all of which are covered with tiles. All the huts have mud walls; one-fourth of them is covered with tiles, three-fourths are thatched. About 150 are in the shape of bee-hives, and belong to the impure tribe of Musahur. Except that there are no clay-walled castles, the villages here entirely resemble those of Behar, and the roofs are still more clumsy and defective, so that on a near approach they look most wretched, although at a distance they have often a picturesque and neat appearance. This latter remark extending throughout the district, need not be repeated. The town of Arah, which is the capital of the district, stands on an elevated space surrounded by creeks and land subject to inundation; so that the price of ground for building has become very high. It is supposed to contain 2,775 houses, with 8 people to each house. The buildings are in general mean, and, as usual, close huddled together, but some decent roads have been cut through the chaps of lanes, and form tolerable streets. The road from Patna to Vagsar passes through its whole length, and at the east end has on both sides a close built town. Towards its west end, on the north side, is an open lawn, in which are placed the court houses, the accommodation for the judge of circuit, and the houses of the judge and surgeon of the station, all buildings sufficiently commodious, but in no way ornamental. Two fine broad roads pass south at right angles to the west end of the Vag-sar road, and about their middle are crossed at right angles by a third. This is the handsomest part of the town. There

are two or three small mosques and temples in good repair, but in no manner remarkable. Good roads, with abundant small bridges, surround the town in all directions for a little way, and are kept in very good order by the labour of the convicts. In the environs several of the natives have small gardens, in which they have collected a considerable variety of trees, and a good many flowers, and all around is very neatly cultivated and well watered; so that, although the plantations are not thriving, the trees being rather stunted, the vicinity looks uncommonly well.

The name Arah is said by the Pandits of the place to be properly Ara, and to be a corruption from Aranya, which in the Sangskrita signifies a waste. This name was given by the five sons of Pandu, the place then being a forest, where they performed several great works. In particular the Pandits allege, that it was heré where the five brothers married Draupati. Such marriages are now totally illegal, nor could any one of these chiefs have now married this lady, as she was of the same family with themselves in the male line. This is only curious as it shows that the Hindu law has in modern times undergone great changes in other matters, as well as in the introduction of caste. It must be, however, observed, that this custom of several brothers having a common wife is still very prevalent among the Bhuddhists of Thibet. The Pandit of the survey doubts very much of Ara having been the scene of this marriage, and the derivation of the name from the Sangskrita seems exceedingly doubtful. In Persian the name is written Arah. The place is said to be also called Ekachakra, implying the people to live in unanimity, a virtue for which at present they have by no means the credit.

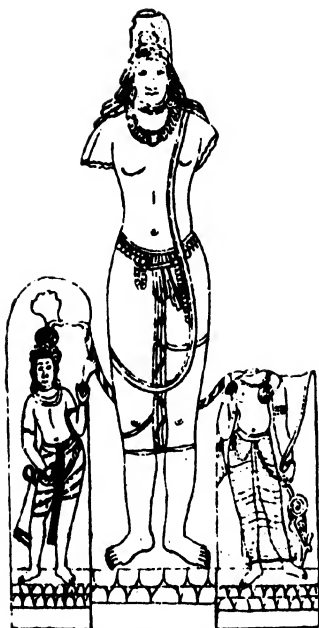
Babura is a small town containing about 250 houses; Gajarajgunj contains about 200; Ikhtiyarpur is nearly of the same size, as are also Amarapura, Berempur, Kailawar, Brukgunj and Sinaha; Tribhuvani and Pachane contain about 150; Bharsahar, or Amsahar, contains 100; as do likewise Mahai, Sakardihir, Guri, and Saraiya.

At a village called Masar, about six miles west, a little southerly from Arah, are some ruins and places of worship belonging both to the orthodox and heterodox, and the place has probably been dedicated to religion from a very remote

period. I shall therefore give an account of the present appearances. Immediately west from the village is a heap of bricks, extending about 50 yards every way, and still of considerable elevation. It is attributed by tradition to the Ban Asur mentioned in the historical notices. On the highest part I found projecting the head and shoulders of an image larger than the human size, and said to represent the infidel, on which account the people pelt it with bricks. The people are certainly afraid of this image; and on my proposing to dig it out, said that a man who had made the attempt had been punished for his temerity by a sudden death. The Rajput, to whom the village belongs, said that he would willingly take the bricks to build his house, were he not afraid of the consequences. On having it dug up, I found, as will appear by the drawing,* that it entirely resembles the images in Behar, which are called Vasudeva, or Lakshmi Narayan, and represents a prince standing between two attendants. This image, one of the most common in the temples of the Buddhists, may very likely represent Ban Asur, as is here alleged. In some places he is represented with a Lingga on his diadem, and Ban Asur is celebrated for the earnestness with which he worshipped that god. In others he has a Buddha in the same situation to denote that he followed the doctrine of these lawgivers. I have stated in the historical notices that the works at M^{as}ur seem to me, from their style, to have been erected by the Cheros; and in fact the people, although they call the large heap the house of Ban Asur, allege that long after his time the Cheros occupied the place. Ban Raja, indeed, according to common legend, lived in the end of the Dwaparyug, probably 1,000 or 1,100 years before the birth of Christ, four or five centuries before the commencement of the Cheros government, and 15 or 16 before they were finally deprived of power. If, however, Ban Asur was destroyed by the Grecians of Bactria (*Yavanas*), as is usually reported in legend, he must have been contemporary with the Cheros.

Near a very rude representation of the nine planets (*Navagraha*), was erected a slab, the chief figure on which is called Bhairav,* and represents a male with two arms,

* See plate 2, Shahabad.



Ban-Asur, at Meaur.



Image on the reverse of the Mona containing that called Ph. aruv, at Meaur.



Mahamaya, at Meaur.



Bhairav or Jend, at Meaur.

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standing, and crowned with a tiara. It differs a good deal from any image, that I have seen in Behar, and very much from those which were there called Bhairav. Some of my people call it Narad; but its representing this personage is exceedingly doubtful. On the reverse of this slab is a female figure, with four arms, to which no name has been given, nor can my people refer it with probability to any known deity. Beyond that I came to another Lingga, like that called Gauri Sangkar. Although all the others are allowed occasional offerings (Pindi), the principal object of worship among the orthodox came next in view. A Brahman priest (Pujari) is attached, covers the image with a cloth, and anoints it with oil. He calls it Mahamaya, or the great mother the wife of Siva; but it evidently represents the spouse of Brahma, as will appear from the drawing.* On each side it has the lion rampant, a common badge of Gautama. It is seated in the open air, on a small terrace of brick, about four feet high. On this terrace have been placed many fragments both of single gods and groups. On each side is a figure exactly resembling Ban Asur, but called Chaturbhuj, from having four arms. They have, as usual in Behar, two angels hovering round their head, which was probably the case with Ban Asur, but that part of his image has been broken. Beyond this is a male figure with four arms standing by a female, and chucking her chin. This is called Krishna and Radha, but my people say, that it has the emblems of Hargauri. Beyond this Sangker Lal, the chief merchant in Arah, is building a temple of his gods, the Jinas. Before the door, on a slab, is a figure entirely resembling Ban Asur, and those called Chaturbhuj; but this is called Krishna. On the reverse of the slab is a small image of Brahma seated, with many ornaments round his head. It must be observed, that most of the slabs here have figures on both sides, which I have nowhere else observed. The principal figure on one of the sides is generally much larger than that on the other, and the empty space above the smaller is filled with various fantastic ornaments. Except one small apartment the foundations alone of the new Jain temple have been erected; but another stood in the same place, and is said to have been

* See plate 2.

erected by Harji Mal, a merchant. In the chamber now built, are eight small images of the persons worshipped by the Jain, (see plate These are said to have formerly been placed in an equal number of chambers, and this will be the case in the new temple, when it is completed. The date of the inscription on the seven images is Samvat 1443, and of those on the eighth image is 1449, that is, A. D. 1386 and 1392. The old temple was probably built about that period. In digging up the foundations of the old temple, and in search of materials from the heap, upon which it was placed, have been found many fragments and carved stones, which have been placed under a tree at the west-end of the ruin.

The principal figures that I noticed among these, were two like Ban Asur, a Ganesa, a female seated on a lion with a child on her knee, and one like that called Krishna and Radha. The material on which these images are cut, being stone from the mountains of this district, does not admit of such good workmanship as the indurated potstone or hornblende used in Behar, and the figures are therefore more rude than those of that district. What is called the house of Ban Asur, has evidently been a temple, and probably a solid one, like those most usual among the Buddhists. The original buildings near the tank have probably been accommodations for the priests, and round the great temple are traces of some smaller buildings, which probably had a similar destination.

THANAH BILOTI.—This is a very long narrow jurisdiction, and a considerable portion situated beyond the Ganges. About one-half of the division north from Biloti, is of the utmost richness, and consists of the inundated land called Hetowar. South from Biloti, a great part of the country is covered with forest; and, even where that has been removed, a great deal of land is wasted on plantations of very little value. Trees therefore abound, while irrigation is much neglected; and in this part of the division want and other misery are very predominant. One of the greatest chiefs of the Paramarkas resides in this division at Jagadispur, near which he has very extensive domains. He resides in a castle built of mud and brick, abundantly large for a person of rank, but no way ornamental, nor at all suited either to the size of his estate, or to his high birth. There are four other houses of brick; 100 mud walled houses of two stories covered with

tiles, and 50 covered with thatch. The remaining dwellings are thatched huts, of which $\frac{1}{2}$ parts have mud walls, and $\frac{1}{2}$ part walls of hurdles or reeds. The villages here resemble those of Arah.

Biloti, where the native officers of police reside, is a poor place containing only about 80 houses. Jagadispur is the chief town, for which it would be difficult to account, as it is surrounded by a forest, and by a country in a most wretched state of cultivation; but it contains about 1,000 houses. Bindhuliya, on the fertile bank of the Ganges, and a place of great commerce, contains only 500 houses; Bairiya contains as many, Sahapur, 400; Sahiya, 350; Ranisagar, 300; Mauyar, 250; Dulaur, 200; and Lalgunj, 150.

DUMRAONG.—More than a fifth part of the division consists of the rich low land on the side of the Ganges which is called Hetowar, and is most fully occupied. The remainder is a good deal neglected. Near Dumraong the land rises into considerable swells, and is rather poor; but, even where abundantly rich, much is allowed to be covered with forest reserved for sport, or wasted in plantations of very little use, and irrigation is too much neglected.

There are ten brick houses. That of the Raja of Bhojpur, the descendant of the Emperor Vikrama, is a very sorry structure. The original family seat was destroyed by Kāsem Aly; and when Jaya Prakas (now Raja) succeeded, the estate was overwhelmed with debt, which this prudent and obliging person has been carefully liquidating. He has not, therefore, been able to attend sufficiently to the splendour of his residence; but is gradually making improvements. The fortification by which it was surrounded is entirely neglected. There are 800 mud-walled houses of two stories, 500 tiled, and 300 thatched, and some of the former are good and neat abodes. The huts have mud walls, 700 of them are tiled, $\frac{1}{8}$ th thatched with stubble, and the remainder with grass. The villages resemble those in Arah. Dumraong, the residence of the Raja, and officers of police, surrounds the Raja's house on all sides, and may contain 1000 houses; but few of them are well built. Vagsar, including Sahanipati, Pangrepati, and Madingunj, contains 600 houses, and a branch of the Bhojpur family has there its residence. The fortress, built originally by one of his ancestors, is of little importance, although held by a small garrison, and strengthened by

some additional works constructed by European engineers. Simri contains 400 houses; Chaugai and Sapahi each 300; New Bhojpur and Kesat, 200 houses each (the former is very well built, and clean); Brahmapur, vulgo Barahampur, and Methila, 150; old Bhojpur and Saya have each 100.

The chief seat of Hindu worship in this division is Vagsar (Buxar R.), famous in modern times for a battle gained by Major Monro over the forces of the Mogul united to those of the Subahs of Ayodhya and Bengal, a battle which rendered the English in fact masters of India, had they then been prepared to avail themselves to the full extent of their fortune. Few places in India are more celebrated in legend than Vagsar, and none the least celebrated contains fewer or less interesting monuments of antiquity; nor is there any, the accounts concerning which are more contradictory.

EKWARI.—The soil of this division is in general light, and rather poor, so that without great pains bestowed on irrigation the crops will be scanty. This care has not been shown, and the country is in a wretched state. A great deal is overgrown with stunted woods, much has been lately deserted, and plantations of very little use occupy a large proportion, and are too extensive to be ornamental. There are three brick houses; $\frac{1}{8}$ th houses consists of two stories, with mud walls, of which 600 may be tiled. A few Musahars live in round hovels, like bee-hives, with walls of hurdles. The remaining habitations are mud-walled huts, thatched with grass. The villages, except in being more miserable, resemble those of Arah.

Ekwari, which ought to be the residence of the officers of police, has no market, but contains 100 houses of cultivators; Sahar, where these officers reside, contains about 500 houses and some manufactures. Garini contains 250; Nagri, Sikarhata, and Piro, 200; Baga contains 150, as do also Paona, Barkagang, and Karat; Agango contains rather more than 100.

The only place of worship among the Hindus, and the only remain of antiquity worth notice, is called Deva Barnarak, or the place of Deva Barn, who is said on the spot to have been a Raja of the brazen age (Dwapar Yug); but his name, I am told by the Pandit of the survey, is not to be found in legend. Deva Barnarak is usually called Deo Punarak, and is situated about 10 miles west from Ekwari. The Raja is said to have

lived at Baraong, about six miles north from the temple ; but I am informed that the ruins of his abode contain nothing remarkable. The village of Deo Punarak is small, and belongs to a Moslem free of rent ; on three sides it is surrounded by a wide canal a good deal obliterated, but which about the middle of November still contains much water. The north side of the village is shut in by the temple, which is ruinous, but has no appearance of being so old as pretended, although its various parts seem of very different ages, and some parts may be of great antiquity and may have undergone various repairs and changes from different sects and persons. It occupies a square elevated terrace of considerable size, and surrounded by a wall of brick. East from the terrace is an old tank which may be 200 yards long by about 100 wide, from east to west. The gate of the temple faces this tank, or is at the east side of the terrace. Before it, towards the south, is a column, the most curious remain about the temple : it is quadrangular at the capital and base, and octagonal in the centre. On the base are four figures so much sunk in the ground that I could not make out their form. On the centre are eight figures, which notwithstanding their number, are called the (Navagraha) nine planets, and in fact the usual figure of Rahu is very distinguishable, but Ketu is wanting. Perhaps we may from this infer, that when this pillar was made, the planet Ketu had not been invented, although it is not impossible that the artist having only eight sides on his pillar, left out the unfortunate monster. On the capital are four figures ; one riding on a winged person is called Krishna, a second riding on an elephant is called Indra, and a third riding on a buffalo is called Yama, the fourth is seated like the figures called Kuber in Gaya, and is here also called by that name. North from the gate has been a small detached shrine, which has fallen, and the image is lying on the ruins deprived of head and feet : it has represented a male in a standing posture, and with only two arms. The Pujuri, a Brahman of Sakudwip, has given this no name ; he is indeed very unusually sparing in his nomenclature, and worships several that are still anonymous. In this he has shown prudence, as in the attempts which he has made at a new nomenclature, he has not been very successful. The gate has been a projecting building, through which you pass to the front of the chief shrine. This has not been

large, and the porch before it has been supported by only four columns, but these are more ornamented than is usual in Behar; the roof has fallen, and among the ruins are several images and fragments, said to have been mutilated by Kasam Aly. I observed four or five fragments of what is called Vasudeva in Behar, three of the kind called there Hargauri, and two Ganesas: these five the Pujari oils, and calls by the same names. The arch which supported the roof of the shrine is still entire, but most of the pyramid has fallen. The image is called the sun, but more resembles Vasudeva, and has no horses, the emblems of the great luminary. North from the above has been another pyramidal shrine, nearly as large, but it never has had a porch. The image is called Kumari, a goddess; but it is a male of a natural shape, standing with a flower in each hand, and a crown on his head. On the throne are some animals, which may have probably been intended to represent horses, and this figure therefore has more resemblance to the sun, than that to which the priest has given the name. East from the last mentioned old shrine, and south from the former, are two that are much smaller, have every appearance of being much more modern, and resemble somewhat a lantern in shape: one contains a female image of a natural shape, and in a standing posture; the other contains an image resembling those which in Gaya are called Hargauri. The priest gives neither a name, but he makes offerings to both, and to the latter especially at marriages. South also from the great shrine is a small one, very ruinous, but not unroofed: it contains a Siva Lingga, at present the chief object of worship. About 300 votaries assemble on the festival of the deity. At the south-east corner of the terrace has been a small chamber, now unroofed, but it contains several images. One resembles Hargauri, but a child in place of a lion is placed at the feet of the female; while the male, as usual, is attended by a bull. Another is Ganesa; a third, called Bhawani by the priest, is a fat male, like the Kuber of Gaya. He calls by the same name a female with four arms, seated on a lion. A fifth represents one of the hideous empty-bellied monsters pretty common in Behar, such as the Jaradeva of Rajagriha: this is seated on a human carcass, and has four arms. I suspect, that what in the account of Behar I have considered armour, is intended to represent bones, and that these monsters are intended for

skeletons, and the arms and head of this image have somewhat more that appearance than those usual in Behar: the priest calls it Kangkali. It must be observed, that at the Inanah, the best informed people attributed this temple to Kumardhir Sa, a Paramarka Rajput, who lived at Baraong about 150 years ago; and I think it probable that he may have given the whole some repair, and built the two small shrines that resemble lanterns; but the other parts are evidently of much greater antiquity. From the above account of the images it may be readily concluded that most of them belonged to the Cheros; but the pillar is not like any of their works, and may be older, although it has some resemblance to the works of the Siviras, by whom the Cheros were finally overcome. The conformity is however far from complete.

KARANGGJA.—The western part of this division consists chiefly of a rich clay, while its eastern end is rather poor and sandy; both are very much neglected, and a large proportion is occupied by stunted woods, or having been recently deserted, is only overgrown with long coarse grass. The plantations are too numerous either for use or ornament.

This division has five houses of brick, two of them at Suryapura, belonging to the family of the old Kanungoes, are very large; but owing to the usual want of windows, look exceedingly dismal, and are the very reverse in every respect of what good taste would dictate. There are also 50 mud walled houses of two stories, all covered with tiles. All the huts have mud walls, one-sixteenth covered with tiles, fifteen-sixteenths thatched with grass.

Karangju, where the office of police has been placed, is a small market place (*hat*) with only 70 houses.

Koyat is the largest town in this division, and contains 500 houses; Suryapura and Sivagunj, which are contiguous, contain 200, and Dayot contains about the same number; Dhangangi contains somewhat less; and Ghosiya has 150.

BARAONG.—Like Karangja, the eastern part of this division, is rather poor and sandy; but the western part is mostly rich clay. The whole is better cultivated, and contains scarcely any woods. The central parts near Naukha are rather neglected, having not yet recovered from the desolation occasioned by the wars between Kasem Aly and the

Paramarkas. The face of the country in the middle parts of this division is finely diversified by some small rocks that project from the plain near Naukha. The space, which they occupy, is altogether inconsiderable, nor is their elevation great; but their rugged sterility is a fine contrast to the fertility of the plain, which comes to their roots; and the excellent materials which they afford for building would be of great value, were the country in a state of civilization, that admitted of the people being decently lodged; but such has never been the case. The western parts are not only by far the richest by nature; but are the best occupied, nor is much wasted there on useless plantations. There are, however, abundance of mangoes for use; but an addition of palms would contribute much to increase the beauty of the prospect.

At Naukha is a large rude castle of mud and brick, which belonged to Pahelwan Singha, the Paramarka chief, whose violence brought on the desolation of the country; and it is still occupied by his descendants, although mismanagement has very much reduced their estates. Although large, it is anything but an ornament to the country. There is only one other house of brick in the division. One hundred and twenty houses have mud walls and two stories; 100 of them are thatched, and 20 covered with tiles. All the huts have mud walls, 100 are tiled. All the others are thatched chiefly with grass, a very few only with stubble. The villages here are more ornamental than in the northern parts of the district, as many of them have small mud castles still occupied.

Baraong, where the officers of police reside, is a poor place, without any market, and contains only 30 houses; Naukha has 400; Harichar and Nasirygunj, which join, contain 300 houses; Barari, Kochas, and Rajput, 200 each; and Baghni and Balgang have each 100.

SHAHASRAM.*—The level country of this division is exceedingly beautiful, as the hills are everywhere in full view, rugged and perpendicular towards the summit, and finely wooded towards the bottom, while the plain is very fully occupied, and the plantations are sufficient for variety, but

* Also Shahasram and Sasraong—signifies 1000 toys or play things, because a certain Asur who lived here had 1000 arms, and in each hand a different toy.

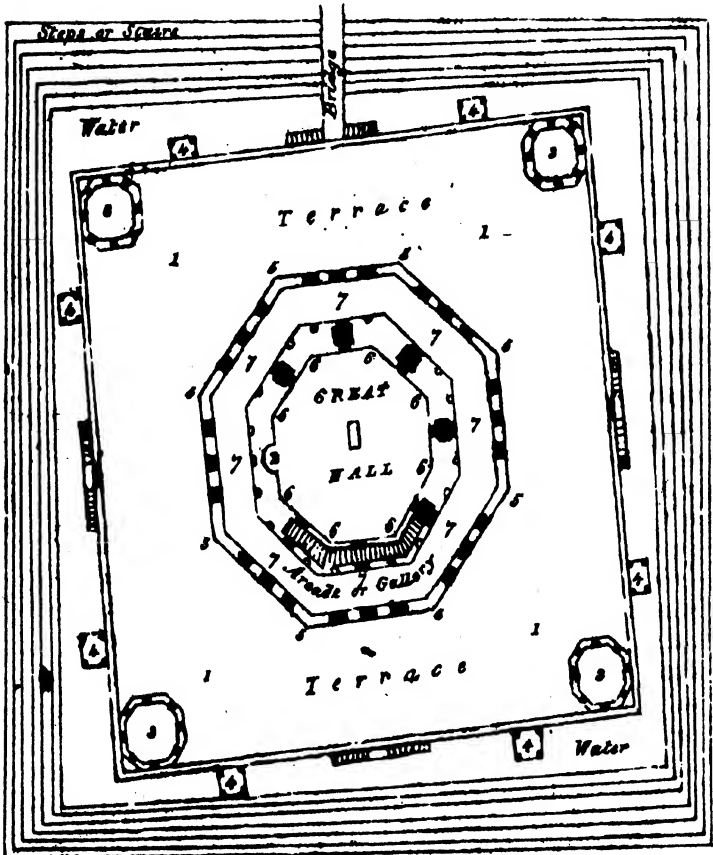
not so numerous as to satiate the eye. They are besides diversified with many palms. Near Shahasram also the tombs of Sher Shah's family add much to the beauty of the view. The approach indeed to this town from the north is uncommonly fine. The appearance of the table land in the southern part of the district, and of the recesses in its side, have been sufficiently described in the account of the hills and rivers. One hundred and twenty-five houses are brick and stone, 25 having their roofs terraced with plaster, while 100 are covered with tiles; 500 houses have two stories and mud walls, and are covered with tiles. All the huts have mud walls, 3000 are roofed with tiles, the remainder with grass. Shahasram is a considerable country town, estimated by the Darogah to contain about 3600 houses, very few of which are thatched:—some of brick or stone are pretty large. It is not much short of a mile in diameter each way, and is pretty closely built, on which account, and from the quantity of grain said to be consumed in it, I suspect, that the Darogah has underrated the number of houses. A few of the streets are tolerably wide, that is two carts might with some difficulty pass; and they are very rudely paved with stone. Some people keep the fronts of their houses, and the street opposite to them tolerably clean; but this is of very little avail, as more than two or three such people seldom live together, and their neighbours are involved in every species of nastiness. Most of the passages are as usual narrow crooked lanes. Besides the officers of police, Shahasram is the residence of a Tahasildar, who receives the revenue of the vicinity for the collector of Arah. Except a public bath, the keeper of which has an allowance from the E. I. Comp., all the public works have become ruinous. Besides Shahasram there are in this division the following small towns: Darihat and Raypurchor, each containing 250 houses; Jamuhar, Puhelyjah, Vangk, Muradabad, Chanari, and Alempur, each containing 200; Dhaodangr, containing 150; Khuremabad, about 185, and Akuri, 100.

Shahasram seems to have early become a Muhammedan town, and Huseyn Khan, a Pathan, who from his warlike manners was styled Sur, lived there about the time that the Mogul Babar usurped the government of India. The ruins of his house would seem from the size to show, that he was a

person of respectable though private rank. His son Sher became Emperor of India. In the middle of the town the son piously erected to his father's memory a very large monument, which is pretty entire. The style of this monument is exactly similar to that of the son, which will be fully described, and illustrated by drawings, and these may serve for both. I shall only here mention the differences. The tomb of Huseyn Khan, in place of being surrounded by a tank, stands in a large area, enclosed by a lofty wall of cut stone, in the eastern face of which is a large gate, and in the western the mosque, which also is built of stone. The tomb is not so large as that of the king; but like it consists of a lofty octagonal hall surrounded by an arcade of three Gothic arches on each side, and surmounted by a large dome. The whole of the arcade, outside and in, although built of cut stone, would appear to have been covered with plaster, very minutely ornamented, and containing a vast extent of pious sentences. The roof of the arcade has no cupolas at the corners, but each side is covered by three small domes, rising above the balustrade. In the second story there are no windows; but at each of the angles its roof has a cupola as in the tomb of the son. The great dome springs immediately from this roof, and is not supported by a third octagonal story, such as appears in the drawing (plate 2) of the son's monument. The summit is crowned by an ornament of various mouldings, and not by a cupola.

The monument of Sher Shah is situated at the west end of Shahasram in a large tank (lake). The earth taken out of the tank has, as usual, been thrown into large unseemly banks at a considerable distance from the edge of the tank, and, had they been planted, they might have added much to the grandeur of the place. The stair, which slopes down the sides of the tank, has consisted of five or six monstrous misshapen steps, in most parts totally broken, but enough remains to show that they never have been well cut nor built, and they are out of all reach of convenient dimension; otherwise this part of the work would have been very grand and beautiful. From the north side of the stair a bridge led into the island, on which the tomb stands; but, luckily for the monument, the bridge has fallen; so that access is difficult, nor can the materials be conveyed away for building.

Island and Plan of Sher Shah's Tomb



The only access now is by a raft made of earthen pots, and this is only constructed when strangers from curiosity visit the place. The water of the tank is very dirty, owing to all manner of men and beasts frequenting it to wash themselves and clothes. Were it not for this, I believe it would be clean and good. As it is, all classes use it both for drink and culinary purposes, the natives, in respect to water, being the dirtiest people on earth. Unlike our Brahmans of Calcutta, who reject the water of the Laldighi tank, because dug by infidels, I observed those of Shahasram performing their mummeries on the stairs, as quietly as if it had been dug by Krishna, and most contentedly and piously sipping the puddle that had soaked through the infidels' graves.

The island rises for some way with very rude steps, above which is a terrace (1, 1, 1, 1,) faced with stone, 30 feet higher than the present level of the water, and surmounted by battlements 6 feet high. This terrace, it must be observed, is placed obliquely on the island. I cannot assign any reason for the circumstance, which injures considerably the whole appearance of the place. I at one time thought that it might have been done with a view of turning the niche for prayer (2) towards Mecca; but it will be observed, that the obliquity turns this to the southward in place of to the northward of east, which it should have done to have turned the niche towards the holy city.

The four octagonal buildings (3, 3, 3, 3,) at the corners of the terrace, viewed from the outside, are very heavy. Within they form neat airy apartments, ruined by having had their floors raised in the vain search of treasure. The eight little balconies (4, 4, 4, 4, 4, 4, 4, 4,) covered by cupolas, project from an equal number of doors in the parapet wall, are each supported by four brackets, and such are the most common ornament in native buildings. They are most commonly used as seats to command a view of what passes without the dens, where the natives of rank are immured. These cupolas, as most usual, are supported by four columns. The tomb itself (5) consists of a great hall (6) surrounded by an arcade forming a gallery (7). Each side of the octagon has, in front, three Gothic arches (No. 2, a), the separate drawing of one of which will give a sufficient idea of their structure. The roof of each side of this gallery, consisting of three alcoves, is

supported by four Gothic arches, above which and the alcoves is a level terrace forming the first stage of the building. The total height of this first stage is about 35 feet 8 inches, including 18 inches for the basement under the arches, and 6 feet 4 inches for a very heavy balustrade and parapet, that rise above the level of the roof. Under this balustrade is, as usual in native buildings, a cornice of slabs sloping downwards, and supported by brackets (9). The terrace on the roof of this first stage is 15 feet wide, and at each corner has a small cupola supported by six rude columns of five sides. The floors of these cupolas, being 18 inches above the terrace, interrupt the walk, which would be otherwise very grand, although the balustrade is too high; but the openings in it afford noble views of the country. Above this terrace the outside of the building rises in a second octagonal stage about 25 feet high, reckoning from the terrace of the first stage to that of the second stage. This second stage consists of a plain wall with a small cornice, surmounted by a low parapet. At each angle, and in the middle of each side, is a small window, the outside view of one of which is given at d, plate 2. This terrace, including the parapet, is 9 feet 10 inches wide, and has at each corner a cupola similar to those below; but two of them (11) are disfigured by having to one side projections of four pillars to support a roof that covers a small door, by which the stair turns upon the terrace. These stairs are altogether wretched. Those for ascending the first story begin from the sides of two of the doors, which lead from the gallery into the central hall, and ascend in the thickness of the wall to two of the windows. Those leading up the second story begin in two other windows, and ascend in the same manner, but turn upon the second terrace by two small doors. They are narrow, steep, dark, and rough. Why they were not made to open into one of the cupolas it would be difficult to say, unless we suppose that the workmen wanted skill to form the necessary calculations.

Above this second stage the outside of the building rises perpendicularly with a third stage of 16 sides, and 11 feet high. This has a small cornice, and a kind of false balustrade, from which the dome rises, and is nearly hemispherical. On its summit is a small cupola supported by four pillars.

To proceed to the interior of the building, which at the base is an octagon of 54 feet the side, the thickness of the outer wall is 6 feet, and the gallery is 10 feet wide. Each of the inner sides of the gallery is divided into three, by an equal number of arches. In the central arch of seven of the sides is a door, represented at plate No. 2, b, which will give a sufficient idea of the style of this part of the building. In the two lateral arches of these seven sides, and in all the three of the sides farthest west, are only simple niches.

The inner wall, bounding the central hall, at the ground is 15 feet thick, and on the inside forms an octagon 41 feet 4 inches a side. The seven doors in the seven sides, as seen from within, are represented in the plate No. 2, c. The side farthest west is the place for prayer, marked by a niche a good deal carved, and surrounded by pious sentences. In the centre of it is written Allah, the revered name of God, which stands alone in many other places of the buildings.

The great hall ascends, as a very plain octagon, for about 27 feet, that is to the level of the terrace above the first stage on the outside of the building. There it has a small rude cornice, and divides into 16 sides, in each of which is one of the windows, $6\frac{1}{2}$ feet high, 4 feet wide, and shut with fret work in stone, as represented in plate No. 2, e. The wall ascends with 16 sides for about 25 feet, when by rude mouldings it is sub-divided into 32, and ascends thus 11 feet farther, when the dome commences. In the centre of the dome, and from each of the three alcoves in each side of the gallery, are remains of chains, from whence probably lamps were hung.

The grave of the king lies in the centre of the hall, opposite to the niche for prayer, with the right hand towards the sacred city. The grave is raised about six inches from the floor, and like it consists of plaster. It is distinguished from many others by a small column placed at the head. The others are said to belong to favourite officers, and are disposed in two rows at their master's feet.

The inside of the tomb is sufficiently ventilated and lighted, and in such a building heaviness does not displease; but the attempts at ornament are in the very worst taste, and are rudely executed. Had the walls being perfectly plain, they would have had a better effect; a few simple but neat cor-

nices, with well formed doors and windows, and good masonry, would have rendered the whole grand and solemn but here, as usual in native masonry, the workmanship is rude; the stones are not placed in regular rows, one is thick, the next one thin, and a third is cut like a dove-tail, in order to fill up the vacuity; some are laid on their sides, some on their ends, so that even in the mere disposition of the stones no regard is paid to symmetry, which produces not only a bad effect, but tends to weaken the building. In the drawing of the doors (plate 2, a b) the actual joinings of the stones have been faithfully represented, which would show the the rickety structure of the arch most usual among the natives, and the still more defective plan of a door supported by brackets, which is not less commonly employed.

The outside of this building is still more defective than the inside, and an attempt at more ornament, with an equal heaviness of design, and rudeness of execution, have rendered its defects more glaring. To crown the bad taste of the whole, the entablatures, balustrades and parapets of the whole outside have been painted with the most gaudy and glaring colours, laid on plaster like a kind of enamel, and covered with stiff tinsel flowers. Time has indeed removed most of the paint, and has so far favoured the appearance of the ruin; for the building must now be considered as such, and has just arrived at the stage, when its decay will be rapid. It has hitherto suffered little dilapidation, and the inner wall and arch of the dome are perfectly entire; but wild fig-trees have taken root on all the exterior parts, and have already overthrown several of the smaller buildings. This is to be regretted, as notwithstanding all its defects, the tomb is a magnificent work, and fit for the sepulchre of a mighty prince. There can be no doubt that Sher Shah left an endowment for the support of his tomb; but the Moguls, who strangely affected to consider him as an usurper, have had the meanness to resume the grant, and ever since their authority was established the place has been totally neglected.

About half a mile north-west from the tomb of Sher Shah is that of his son Selim. It has never been finished, the Moguls, soon after his death, having seized on the empire. The plan intended has been nearly similar to that adopted by his father; for no doubt both princes had commenced their

tombs during their life. The tomb of the son also would have consisted of an island in a tank, with a bridge, and a large octagonal hall covered by a dome, and surrounded by a gallery with three arches in each front. The building has been carried to the height of from 10 to 15 feet, some of the arches having been turned, others not. I observed the following differences in the plan, and some of them are evident improvements. The banks thrown out in digging the tank have been removed to a greater distance, and have been sloped gradually towards the stair, although left very abrupt towards the country. The view from within is not therefore so dismal. The bridge is entire, and enters from the south. It has 11 small passages for the water, which are not arched, but covered by stone beams laid from abutment to abutment. Ten small balconies project from each side above the abutments, and would have been covered with an equal number of small cupolas.

The island has not the obliquity that deforms the monument of Sher Shah, and each side rises about 8 or 10 feet above the water, with a stair extending its whole length. At each corner an octagonal projection, like a bastion, is connected to the island by a narrow gorge of some length; and on these no doubt four octagonal buildings, as in the father's monument, would have been erected. The island from the stair rises on every side gradually towards the tomb, which would have thus been shown from top to bottom. The building would have been nearly of the same size with the tomb of the father; but at each corner would have had a minaret, which would probably have superseded the miserable cupola on the terrace covering the first stage of the building, and have had a good effect. The niche for prayer is not so much ornamented as in the father's monument, and there is on it no writing except the name of God in the centre, and this is repeated in many parts of the building. The grave, which occupies the centre of the building, is undoubtedly that of Selim. On his left is another, nearly of the same size; but whether that of his son Selim, or of a wife, I cannot say, not having at the time learned to distinguish between the grave of a male and that of a female Muhammedan. At their feet are five smaller graves, of unequal sizes, such as may be supposed suited for a growing family of children. These seven graves are surrounded by a wall about seven feet high,

and rudely built of rough stones and clay. The body of S elimwas probably deposited here in great state, to wait for the finishing of the tomb. It is probable that on the murder of the family, the children have been brought here by some faithful servant, and surrounded by a wall to exclude wild beasts.

The appearance of Shergar (which is situate amidst the most magnificent scenery, and adjacent to one of the richest plains in the world) from below is much superior to that of Rautas, as the top of the rock all round is crowned with a rampart, strengthened by numerous bastions and bulwarks. These now indeed are ruinous, but they make a considerable show, while the works of Rautas are scarcely to be discerned, except on a near approach, and are confined to a few parts of the hill. The ascent to the principal gate on the north has also been much grander than any of the approaches to Rautas, and has been a broad but irregular stair, winding with short zig-zags, and much easier than is usual in native buildings, although very inferior to what any ordinary mason in Europe would propose to construct. The accommodations for the ladies form a long castle on the summit of the small hill on the south side of the fort, and when viewed from the north side, have a grand appearance, somewhat like the castle of Durham.

TILOTHU.—The part of this division which contains any considerable number of inhabitants is a strip along the bank of the Son, about 48 miles in length, and from 1 to 5 miles wide. The narrow level on the Son, were it better cultivated would be extremely beautiful, especially in the rainy season, when the immense torrent is filled, as then hills, woods, water and fertility would unite to complete the scene; but the country is much neglected. The woods are more extensive than is required, and the country on the bank of the Son overwhelmed with useless plantations, containing little or no variety of trees.

There are 10 brick houses, one of which, belonging to the proprietors of Tilothu, is the best lighted native house that I have seen, having as many windows as if it had been built by an European. It was only designed for public occasions; the dwelling-house was poor, and, as usual, shut up by high mud walls. There are 75 mud-walled houses of two stories, 50 of which are tiled, and 25 thatched. The walls of all the

huts on the table land are constructed of hurdles, of all on the plain of mud. Of the latter one in 32 may be tiled.

Tilothu, including Aurungabad, in which the office of police is situated, is a good country town, containing 700 houses, few of which are thatched. Among them are most of those of brick or of two stories. Many of these last are very large, and belong to Muhammedan merchants, who round the town have formed very extensive plantations of mangoes, in which are some neat tombs and small places of worship. The Imamvari, dedicated to the memory of the grandsons of the prophet, is a very neat place. Akbarpur contains 200 houses, Daranagar 150, and Maharajgunj 100.

Where the Tutrahi, a branch of the Kudra river, falls down the hills near Tilothu, is a holy place sacred to the goddess Totala. The recess into which this stream falls is about half a mile deep, and terminates in a magnificent abrupt rock, somewhat in the shape of a horse-shoe, and from 180 to 250 feet high. In the centre is a deep pool, at all times filled with water, and which receives the stream as it falls from a gap in this immense precipice. The gap may be 30 feet wide, and the perpendicular height there, I conjecture, may be 180 feet. The rock is not exactly perpendicular. For about 60 feet from the pool, or one-third of the height, it inclines backwards at an angle of about 100 or 105 with the horizon, and the ascent to that is formed like stairs by the horizontal strata of which the rock consists. Above that it overhangs, so that the water falling over reaches nearly the edge of the pool. The image* (13) is said to have been placed there by the Cheros, about 18 centuries ago, and in fact resembles one of the images very common in the works attributed to that people in Behar; but this antiquity is by no means confirmed by the inscription, the date of which is evidently in Samvat 1389, or A. D. 1332; but the Pandit of the mission does not understand the remainder, although it is abundantly legible. This image indeed would not appear to have been that originally worshipped, and in the year 1332 has probably been taken from some ruin, and placed here; for on another it is said that the Guru of a neighbouring prince, Pratapa Dhavala, had in 1158 made the image of

* See plate 9, Shahabad.

the goddess, alluding evidently to a rude female figure carved on the rock, and now totally neglected. This image now worshipped is, as usual, a slab carved in relief, and represents a female with many arms killing a man springing from the neck of a buffalo. It is placed on the highest ledge of the sloping part of the rock, immediately under the waterfall, and from 200 to 300 votaries at different times, in the month Sravan, go to the place to pray. There is no Pujari.

The principal remain of antiquity in this division is Rautasgar, which, as I have said, derives its name from the young prince Rohitaswa, the son of Harischandra, a king of the family of the sun in the most remote periods of Hindu legend. Whether or not Rohitaswa resided there, may be doubted; but his image, there can be little doubt, continued to be worshipped in the fortress until destroyed by the zeal of Aurungzeb; such, at least, is the general tradition, and all the circumstances are highly probable. I have learned nothing of the persons who held Rautasgar from the time of the son of Harischandra until the 12th century of the Christian era, when it seems to have belonged to Pratapa Dhavala, father of the last Hindu emperor; and it continued for some time subject to his descendants, as has been already explained. The usual tradition is, that it first fell under the Muhammedan yoke in the time of Sher Shah, A.D. 1539. Immediately on obtaining possession, he seems to have set about strengthening the place; but the works which he commenced were abandoned after small progress having been made, owing to his having discovered a situation which he considered more favourable, and where he erected Shergar, as already described. When Man Singha was appointed viceroy of Behar and Bengal, he selected Rautas as a place of safety for his treasures and family, and it would from tradition appear that almost the whole buildings now on the place were erected by that powerful chief, and this is confirmed by two inscriptions in Sangskrita and Persian, on the two principal works, the palace and Kathotiya gate. From these it would appear that these works were finished in the year 1654 (A.D. 1597), that is, in 10 years after he procured the government. After his death, the fortress was annexed to the office of Vazir of the empire, by whom the governors were appointed. In 1644 (A.D.), when Shah Jehan rebelled against his father, the

governor received the family of the prince, and protected them until pardon was granted.

The fort was under the authority of an officer called Kelahdar, to whom for the maintenance of the whole expense were assigned the estates (*pergunahs*), named Chayanpur, Shahasram, Kera, Monggaraur, Siris, Kutumba, Dugul, Charganga, Japila, Belonja, Vijayagar, Ekbarpur, Tilothu, and Palamu, partly in this district, partly in Ramgar, and partly in Mirzapur. These estates were managed for the Kelahdar by a Dewan, who, although a mere penman, seems to have had considerable authority in the fort, having the entire confidence of the chief. The Kelahdar had usually a guard of 400 or 500 men attached to his own person, and changed when he was removed. The regular military establishment of the garrison was under the command of an officer named Hazari, from his commanding 1,000 men. The office was hereditary, and held by a family originally Rajputs, but now Muhammedans, and it was from Keramut Khan, the son of the last person who held this office, and from the agent of the last Dewan, both intelligent polite men, that I took my account. The 1000 men under the Hazari were natives of the fortress, and their families occupied a small town near the palace. They served as artillerymen, and being inured to the climate, were the part of the garrison on whose exertions most reliance would be placed. Besides these, two Rusalahs of matchlock-men, each containing about 2000, were usually stationed in the place, and were sometimes augmented, and regularly relieved, as in the rainy season strangers suffered much from the climate. These were under their own officers, and were stationed at different parts of the extensive table land contained in the garrison.

Kasem Aly, the viceroy of Bengal and Behar, contrary to the rules of the empire, obtained this fortress from Aly Gohar. The Kelahdar was then absent, and his Dewan Shah Mal refused to comply with the royal order. He was, however, unable to secure the place for Suja Ud-dowlah, the Vazir, to whom it of right belonged, and was put in irons by Nisar Aly, who was appointed Kelahdar. After Kasem Aly's lines at Uduyanala were forced, he became anxious for the safety of his family and treasure, and was advised to send them to Rautas. His wife, with 1,700 other women and the treasure, were ar-

cordingly sent to that place under charge of Lala Nobut Rai, who soon died; and the Kelahdar being with the viceroy, the charge was transferred to Shah Mal, the Dewan, who had previously been in irons; but he seems to have acted with honour and fidelity. When Kasem Aly was finally defeated at Vagsar (Buxar), the Dewan sent the chief wife of the viceroy to join him, and she took with her all the gold and jewels; the silver was too heavy for carriage. Kasem Aly, who was very much irritated by some part of Suja Ud-Dowlah's conduct immediately after the battle at Vagsar, wrote to the Dewan, recommending him to deliver up the fortress to the English; so that, some time after the battle, when Colonel Goddard arrived, no resistance was made. The Colonel assembled the garrison, offered to retain such as chose, and desired the others to return to their respective homes. The women were allowed to go where they pleased, with whatever effects they had. One of them was an European, and put herself under the protection of Mrs. Goddard. Most of the others went to Moorshedabad, but their number had been much reduced by sickness. The Colonel remained in the fort for two months, destroying all the military stores, and a small guard continued for about a year, when the place was totally abandoned; and all the merchants and artificers, having no further employment, retired. The place was then in perfect repair, only the women's apartments in the palace, being unable to contain such a number as Kasem Aly sent, almost the whole building had been appropriated for their reception, and had been much disfigured by temporary walls of clay and rough stone run up in haste, in order to procure the concealment considered necessary. These still remain, and occasion some difficulty in tracing the proper form; but, although a space of between 50 and 60 years has occasioned much ruin, the whole form of every part may still be traced, and I made a full plan of the palace (*mahal*), as access to such buildings, while they are occupied, cannot be procured, and as this was designed for a family of the highest distinction in the Mogul empire, and accommodated a prince, when it was at the utmost height of splendour. I now proceed to describe what remains of the fortress.

This occupies a part of the table land, about four miles from east to west, and five miles from north to south; but

among the natives it is usually reckoned 28 miles round, and following the windings of the hill, it may be so. The area is very hilly, and much of the surface consists of bare rock; but there is a good deal of a fine red soil, which might be cultivated, and contains many fine trees. A little also is fit for rice, and by the Kelahdars was usually cultivated with that grain, not that any resource could ever be afforded to the garrison from the cultivation of the soil, farther than a supply of fruit, garden stuff, and of some pasture; but as usual the cultivation was carried on in order to save the conscience of the Kelahdar, when he described the importance of his charge in the common manner of Oriental exaggeration. A deep and wide recess, called Kariyari Kho, separates this part of the table land, from that to the north, and a branch of this recess, named Guluriya Kho, separates it from the table land to the west, leaving only between its south end and the rock, that overhangs the Son, a rocky neck about 200 yards wide. The two sides of this neck are perpendicular, and the sides of the whole circumference are not only everywhere exceedingly steep, but in most places have in some part of their height a perpendicular rock of from 50 to 150 feet high. No less than 83 passages, besides the neck, are accessible to men. Three of these and the neck are called the four great Ghats, while 80 of more difficult access are called Ghaties. Although every one of these has been more or less fortified, and some of them very strongly; yet it is evident, that such a place must have always been liable to surprise, especially with a native garrison, defective both in discipline and vigilance. Rajaghat, towards the south, which is the easiest ascent, is a very steep and long hill; and even there it has been necessary, for a very considerable way, to ascend a perpendicular rock by means of a stair. The works even there are numerous, and strong; and, being scarcely visible from below, in all probability could have been little affected by cannon. The vulnerable part of the fortress is indeed the neck, by which it is joined to the table land, and called Kathotiya. So far as can be judged from what remains, it would appear, that the Hindus at the other places had trusted entirely, or in a great measure, to the natural strength of the place; but across the neck a wide ditch has been dug into the solid rock, and this

is said to have been done by the Hindus. According to tradition it was intended to have made this ditch very deep, even to the level of the plain; but, when a little had been dug, blood issued from a stone, and the work was abandoned. The work has indeed every appearance of unfinished rudeness, and the stone from whence the blood came, is as usual shown, and was an object of worship, so long as the Hindus held the place. The neighbouring peasants still occasionally bestow on it a little red lead, and consider it as the power protecting Rautas. On the east side of this ditch Man Singha erected most stupendous works, which, when viewed from the west, appear very magnificent, and I think exceed any castle that I have seen. Two fine gates, one about 30 yards within the other, defend the north side of the neck, which is low and level, and attached to each are many winding passages, bulwarks, and half moons, while both they and the ditch are commanded by a double line of square bulwarks, half moons, and curtains, with fine battlements, which rise along a low hill that occupies the south side of the neck, and tower 60 or 70 feet above the ditch and recesses, for about 400 yards in extent. A near view is not at all favourable. The access to the different works, and the communications between them are exceedingly difficult. The walls are not thick, and the masonry has all the defects of the buildings at Sahasram. Although it is said, that there was in the fortress a great many guns, it does not appear to me that these works were fitted for receiving them. The embrasures seem to have been fitted for arrows or musketry, although there are a few holes, perhaps a foot square, through which small cannon may have been thrust. These works were still less calculated to resist the attack of modern warfare. They are completely commanded by a rising ground within 200 yards to the west, a few guns placed on which would no doubt knock down the lofty works, and fill the ditch. In the time of Man Singha we may therefore safely infer, that cannon were little used in sieges, whatever the flattery of Abul Fazil may assert. At the east end of the same neck is another line of works, called the Lal Darwajah or red gate, from the colour of some of the stones with which it is built. The works there are comparatively trifling. I need not describe the other fortifications, all of which are inferior to these at

Kathotiya ; and any one of them being carried would render the others of no use, for there is no citadel. The works, which Sher Shah commenced, seem indeed to have been intended for such, and would have occupied a square space along the south side of the hill, including most of the places in which water is found, so that had an enemy carried the ascent, he would not have been able to besiege the citadel from a want of drink. The south face of this citadel would have been defended by the natural precipices of the rock towards the Son. Some progress had been made on the ramparts facing the east and north, but that towards the west had not been commenced, when the work was abandoned. The only part finished is a tomb for the superintendent (Darogah) of the works, who is said to have been an Abyssinian slave ; but he probably continued governor of the place long after the works were relinquished, and is said to have founded a school (Madressa), some remains of which, and a small mosque are shown. His tomb much resembles that of Sher Shah's father, but is much smaller. It is still very entire. None of the works make any show from below, nor would any one in passing, imagine that such a barren dismal rock was either a fortress, or contained so many great buildings.

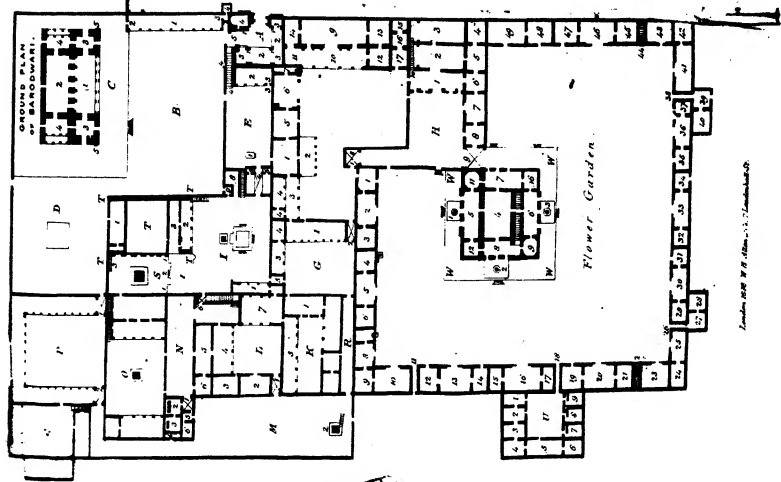
I now proceed to describe the works that were defended by these fortifications :—Very little indeed remains that can be attributed to the Hindus. Near the palace are three old tanks called after Ben Raja, Gaur Paja, and Chandrabhan, Many think that these were three persons of the same family, by caste Brahmans (probably of the military kind), and that it was from Chandrabhan that Sher Shah took the place. This is by no means confirmed by the inscription at Bandu ghat ; but it is perhaps not altogether invalidated by that monument, for the 345 years intervening between the death of Jaya Chandra and the capture of Rautasgar by Sher Shah, will not only admit of the 12 governors mentioned in the inscriptions, but of these three Brahmans. The silence, however, of the inscription concerning these persons, while it goes on to mention the tributaries who held the country after the conquest, is a strong circumstance against the truth of this tradition ; and if any such persons as Ben Gaur and Chandrabhan existed, which from the circumstance of the

tanks is not improbable, they may have held Rautas before Pratapa Dhavala; and, in fact, the Belaunja Raja, who pretends to be this person's descendant alleges, that he was the great great grandson of Chandrabhan. This genealogy is however liable to numerous objections, as will be afterwards mentioned.

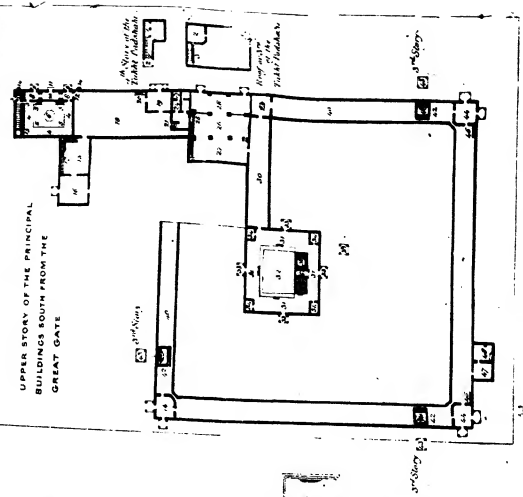
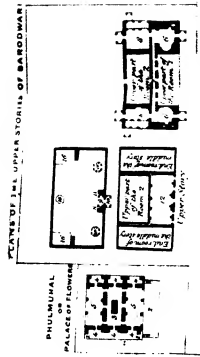
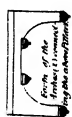
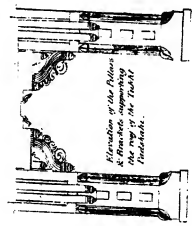
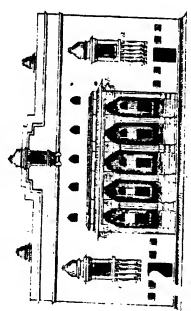
At the south-east corner of the table-land is an old temple called the seat (Chauri) of Rohitaswa, where it is said that an image of that prince continued to be worshipped, until the time of Aurungzeb. It is situated on a small but steep peak, which commands an extensive, magnificent and varied prospect, far over the country beyond the Son. To the summit is an ascent by 84 steps, about eight inches high, 10 inches wide, and 10 feet long, which is by far superior to any other stair in the place. The steps are still quite entire, nor does it appear to me that they can be older than the time of Man Singha; but the temple is evidently much older. The lower part of the shrine is still standing, and the arch by which it is covered is still entire; but the pyramid by which the arch was surmounted, and the porch, have fallen. The image, as I have said, was removed by Aurungzeb, but the door contains some figures. The orthodoxy of its founder is denoted by a Ganesa on the middle of the lintel; above it are four animals so rudely carved, that it is impossible to say, with certainty, to what class even they belong. They have however some resemblance to what is usually called the Hangsa or goose of Brahma (Anas Casarca). On each side at the bottom, is a man in the act of drawing a sword. From all the circumstances we may probably refer this temple to the time of the three Rajas, who dug the tanks, and who probably lived in the 10th or 11th century. Behind the temple is a small mosque, built, according to tradition, by Aurungzeb, when his zeal triumphed over the worship of Rohitaswa. At the bottom of the stair is a small but very handsome temple, universally attributed to Man Singha, and nearly in the same state of decay with the stair. The image from this also was removed by Aurungzeb, when he purged the place of idolatry. Near this is a large heap of stones, still perhaps 20 feet high, which has lost all symmetry of form, but may have been a column like that on Giriyaç, which is called the seat of Jarasandha. If any thing about the place

STANDARD.

PLANS AND ELEVATIONS
OF THE
MUHAL SURAY ROHITASWARI.



London 1858 W. B. Allen & Co. Lithographers.



Lithographed by Messrs. W. B. Allen & Co. London.

can be referred to the remote times of Rohitaswa, it is this heap, and may have been erected in front of a temple more ancient than that which now exists, just as the pillar at Giriya has been placed before the temple now in ruin.

Within the gate at Rajaghat has been a very considerable building, with many apartments and accommodations for a family of women. This is said to have been the proper house of the Kelahdar or governor, but was only occupied by him when a family of high distinction resided in the palace. In common he occupied some of the apartments in that large pile. Between these two buildings was the principal marketplace, a street built of stone huts. In this are two temples attributed to Man Singha, and one of them is exceedingly neat and handsome: of this a drawing has been published by Mr. Daniel. It is covered by a dome in the same style with that of the Vishnupad, and in lightness surpasses all Hindu works that I have seen: the image has been removed. The other is small, and has evidently been dedicated to some Avatar of the Jains, to which sect Man Singha probably belonged, which may explain the reason why the accounts of the Hindus in the Ayin Akbery have been derived from these heretics. I shall finish this long account by describing the palace, and to render my meaning intelligible, shall refer to the plans and elevations.

The palace, which is called Muhul Suray, extends for the greatest length north and south, and the principal front is towards the west. Although superior to the others, it is quite irregular, and is entirely destitute of either taste or grandeur, being a plain wall of the bad masonry usual among the natives, in general of no great elevation, and having only one door, and a few pitiful windows scattered at great and irregular distances. The door is the most ornamented part, and is a large Gothic arch, having on each side a rude figure of an elephant, from whence it is called the Hathi pul. Within is another arch of the same dimensions, which lead into a guard-room (A) one of the most elegant parts of the whole building. Two sides (2, 2,) are surrounded by a stone platform for the guards, in place of the benches usual in our guard-rooms, while in three of the corners, behind the buttresses (1, 1, 1, 1,) which support the roof, are a kind of room like recesses (3, 3, 3,) probably for the higher ranks of the

guard. The room (4), in the fourth corner is larger than the others, has no air but by a very small door, and resembles strongly a dungeon. The roof of the guard-room is plastered in the alcove form with many small compartments, somewhat like those in the stone roofs of our cathedrals, but intended merely for ornament, and consisting entirely of plaster, the roof being supported by beams and flags of stone, passing horizontally from wall to wall. The arches, which in some places pass under them are so rude, as scarcely to be able to support their own weight. The roof is divided into four great compartments, one in the centre, one in front, one towards the north, and the fourth towards the south. The only passage into the interior is by this last, through a high double arched gate-way (5), which leads into an open area (B) or Chauk. On the west side of this is a gallery, (1) open in front, and terraced above. The pillars in front are square, and the cornice as usual, consists of sloping flags supported by brackets. The door 3, leads into a small outwork (4), which commands the gate. The door 2, leads into the area of another court (C), which is only distinguished from the former by being elevated a few steps. This open gallery was intended for the accommodation of persons who came on business, and who approached to the presence of the Kelahdar, or chief person in the place, by the door 2, the great man sitting in his office, which occupied the centre of the inner area (C). No person durst proceed straight up in front.

This building for the transaction of business is perhaps the most regular part of the whole palace, and that in the best taste. It is called the Barodwari or 12 gates, and communicates its name to the square (B) in its front. An elevation of the northern face has therefore been given in the drawing. It has in front an open hall (C) supported by four double columns, and two double pilasters with the usual cornice. Over this are five small windows, and above them a kind of pediment, in which there is a window, before which there is a balcony four or five feet square, which is covered by a dome supported on four pillars. On each side of the colonnade is a small plain door, and above each a similar balcony rather below the level of the windows above the colonnade. The hall within the colonnade (1) was occupied by the clerks, while those,

who came for admission having sneaked from the corner door, stood with joined hands on the threshold, until one of these clerks was pleased to communicate his business to the governor, who sat in a hall behind (2), and issued his orders through the clerk. The two halls communicated by five doors of a proper size, so that a man can pass through without stooping, but which would not admit a waggon. In general however, it must be observed, that in native buildings no medium is observed in the size of the doors. They are either monstrous gates, or mere creeping holes. Above each door is a small arched window, but except that in the centre these do not penetrate into the inner hall. At each end of the outer hall is a small square room, with four doors (3, 3,). The roofs of these three rooms in front are flat, and are supported by stone beams covered with flags. The end rooms are very low, but the central hall is of a good height, rather more than its breadth. The great hall behind (2,) is a fine room with an alcove roof divided into three compartments; that in the centre high and round, those at the ends low and semi-circular. At the back it has one door with a window over it, the door leading into the area; and at each end it has the same. These doors at the end of the hall lead into two low square rooms (4, 4,) which are open in front, and supported by a double row of small square columns. At the east and west ends of the building, near the front corner, a stair (5, 5,) leads up to a small door, and passes up from thence through the thickness of the wall, being as usual here narrow, dark and steep. After ascending a short flight, a door leads into a small chamber (see additional plan 6, 6,) over these on the ground floor (3, 3,) with an alcove roof, and two alcove recesses. There is a window in front with a balcony as described, when speaking of the external appearance of the building. In the recess towards the front hall (1) are two windows, one opening into that, and the other into a vault above it. The other recess, leads into a narrow passage (7, 7, 7,) through the wall between the halls 1 and 2, and above the doors by which these communicate, and has a view into both by the windows, which I have mentioned as being above the doors. This passage called a Shah Nushin is about two feet wide, and forms a communication between the upper part of the two ends of the building, the central hall No. 2,

occupying the whole height. From the narrow passage at each end is a door of communication with a small handsome room (Nos. 8, 8,) over those marked (Nos. 4, 4.) These rooms have a coach-roof, and open in front with three arches supported on short pillars. Each has a window in the end opposite to the door, and another which looks into the great hall (2) below.

The same stairs, by another very bad flight lead up to the flat roof of the building (see additional plan), surrounded as usual by a heavy parapet wall about 6 feet high, part of which in front is raised into the pediment; and you enter by a small gallery (9) supported by four pillars into the balcony or Gunbji (10) described as in front of the pediment. On either side of the gallery a stair (11, 11,) still more execrable than the others, leads down into a very low roofed vault (see additional plan, 12) which is above the front hall (1), is lighted by the five small windows in front of the building, and is divided by four gothic arches into five compartments. This served as a treasury. Behind the extreme compartment, at each end, there runs south into the thickness of the wall an arched gallery (13, 13,) about 3 feet wide, and reaching to the back part of the building, but without any opening, except the small door, by which it communicates with the vault. These galleries held the money, while the vault in front was the office of the accomptants, &c. The vault at each end looks down into the small chamber (6) by the small window mentioned when describing it. To return to the roof, at each end towards the north front is a small dome (14, 14,) supported by eight pillars, forming a cupola, or what the natives call a Gunbji. Were it not for the monstrous parapet wall these would have a very good effect, as such cupolas are the only light or showy parts of Hindustani buildings; but from below no part of them can be seen, except the very summit of the domes (15, 16.) Sixteen are elevations (*Chauvutaras*) on the terrace, on which the people sat to enjoy the cool of the evening. The five windows behind these in the parapet wall gave a view of the country; and it would seem, that in fair weather the evenings and nights were usually passed on the roofs, on which account these are always surrounded by walls or screens.

There is nothing else remarkable in this court (C), except

that it had to the east a lower area (D), distinguished from it only by being on a level with B, and having in its centre a small tank. These two areas B and D served as parades for the guards, where they assembled to be viewed by the governor seated in the Baradwari. In the area B is a small door (No. 4), with a window over it. The door leads into a den under a stair, and the window into the stair itself.

The small court E is called Roshun Shuhidka Chauk, from its containing the tomb of a martyr (No. 1) named Roshun. The west end of this court is chiefly occupied by a gallery (No. 2) open in front. This was intended for persons in waiting. The door (No. 3) leads into the gallery, and is merely meant for uniformity. No. 4 leads to an execrable stair, which is long, dark, narrow, and steep, and which in its course has been defended by two doors. Ascending this stair, we come to a narrow landing place, having a door to the right, and another in front. It brings us into some apartments above the main guard A, as may be seen in the plan of the upper story of the building, and terminates in a small closet (1), with a door to the south (2), from which there was access to the roof of the gallery (1) in the area (B), which has on both sides a low parapet.

Another door (3) leads into the corner of an open terrace (4, 4, 4), surrounded by a high parapet wall. Another more elevated terrace (5, 5, 5, 5), about four feet high, projects from the west wall of this area, and occupies most of its space. On the centre of this elevated terrace is another octagonal one (6) still higher, and probably intended as the evening place of recreation for the chief officer of the guard. In the western wall of this area are two doors leading into two small chambers (8, 8) in front of the gate, where each has a balcony (9, 9) covered as usual with a cupola; and between there is another small chamber (10), with which both communicate, and in front of which is a small window (11) immediately above the point of the arch of the outer gate. The northernmost of these three small chambers communicates by a door (12) with the interior of the palace, to which I shall afterwards return. On the south side of the area is a stair (13), open above, and leading to the roof of the small chambers, a terrace surrounded by a parapet, and having in front two small cupolas, in which the low minarets of the

gate (14, 14) terminated. It seems to have been afterwards discovered that this terrace commands a view of the women's apartments, and a rude high wall appears to have been built above the original parapet, and this was covered with a pent roof, which must have disfigured the gate, the only external part of the building in the least handsome. These additional works have in a great measure fallen.

The area F was the abode of the eunuchs. The chamber No. 1 is handsome, with a coach roof, and has in front and at one end two fine open galleries (2, 3), behind the latter of which are a chamber and closet (4, 4). The chamber No. 5 has a plain coach roof: No. 6 is handsome, having an alcove roof divided into many compartments, and a large arched gate, and two small windows towards the area. At its west end is a small door leading into a hovel (7) under a stair, which enters however from the area. This stair (8) is perhaps the best in the building, being four feet wide, and the steps tolerably easy: it leads up to an area above the chamber No. 6, which is surrounded by a very high parapet wall, (see Plan of the upper story No. 15). On the east side of this area is a small neat chamber (No. 16), above No. 5; it has an alcove roof in compartments, and two windows, one of which looks into the women's apartments, the other into the area E: this has before it a balcony and cupola as usual. This apartment is called the Ranggamahal, or abode of pleasure, and seems to have been the sleeping room of the Raja Man Singha. A stair (17) leads up to its roof, which in place of being surrounded by a parapet wall, is surrounded by a row of square pillars, about four feet high, which have been united by screens of stone fretwork, most of which is gone. This roof commands a full view of the women's apartments, and was probably a place where the chief might sit concealed to watch their conduct. To return to the lower apartments, at the west end of the area F in front is an open gallery (10), supported by four columns and two pilasters, with a sloping cornice as usual. The roof is supported by six great arches, which divide it into seven narrow compartments, again arched. At each end a wide arch conducted into two chambers (11 and 12). Behind this gallery, and lighted from it by a wide door and two windows, is an ugly hall with an arched roof (9), and having at each

end a small door, communicating with two dismal dens (13 and 14), which communicate also with the rooms (11 and 12) that are before them. Beyond this are three retiring closets, one within the other (15, 16, and 17). They have no light but from the outer door of 17, and no covered communication with any other part of the building. It may indeed be observed, that in the whole palace there was scarcely any covered communications from one set of apartments to another; and that very often indeed there was no going from one room to another in the same set without being exposed to all the inclemency of a burning sun, or to the torrents of rain which pour down in such a climate. Above these apartments is a large terrace, as will be seen in the plan of the upper story (18). This area is surrounded by high parapet walls, which totally exclude a view of the women's apartments, so that the male attendants of the Raja, or his friends, might be admitted to his principal place of residence (28) through the apartments above the main guard (A). In the west side of this parapet are three small windows looking out to the court in front of the castle. North from these is a handsome room (19), with a door to the south and another to the east, while on the west there is a window with a balcony covered as usual, but larger than common, as it is covered by three cupolas. The roof of this chamber has been composed of flags joined in a bad manner; and some of them, therefore, have given way. A narrow hanging stair (No. 20) led up to the roof; but some of the steps have given way, and it is no longer practicable. This and the other hanging stairs in the building, although they at first sight resemble those so called in Europe, are of a very different and rude structure. One step is no support to the others; each is upheld entirely by the end built into the wall; and, although the projecting part never exceeds two feet in length, many have given way. At the north-end of this area a short open stair (No. 21) leads to a small area (22) on the west side of which are two retiring closets (23, 23 above Nos. 15 and 16), and each has in front an open area (24, 24).

Returning again to the area, F, on the ground, we find a chamber (18), which was the station of a guard of eunuchs, and it forms the chief entry into the women's apartments,

and also into the area H, the more peculiar residence of the Raja, or prince.

The area G was probably the place where women waited in the open galleries 1 and 3 for admission into the eunuchs' lodgings, either to sell commodities or to be carried into the inner apartments. The passage from without was through the alley R and the door 1 in the court M. The guard-room 2 was the entry into the interior. The area K is surrounded on three sides by buildings, and was probably kitchens for the ladies.

The open space M, to which no buildings are immediately attached, seems to have formed a general route of communication, and had in it a small tank (2), to which all the domestics might resort. The apartments round the area N L appear to have belonged to the male domestics of the Raja, and the stair leads up to the terrace, by which they are covered, and from thence into a chamber, which has been above No. 1 in the area K; but the roofs of both upper and lower chambers have fallen, and I know not whether or not the communication went further. These terraces overlook all the area of the baths N and the space M, into which, therefore, the ladies never came. The baths in the area N consist of an antichamber (1), a cold (No. 2), and a hot bath (No. 3), with boilers (4) heated from without, and a retiring closet (6), with a passage (5) opening both to the antichamber and to the open space M. The baths, both hot and cold, have been dug up in search of treasure. They are lighted from above by a small circular opening in the summit of the dome, by which each is covered. From the area of the baths N into the area O, are two doors for the sake of symmetry, for one would have answered every purpose equally well, as will be seen by the plan.

In the centre of the area, O, has been a small reservoir of water. The apartments here seem to have been intended as a place of repose after bathing. A stair leads to the roof of the buildings, which as usual is terraced.

The small area (S) at its north end has had some buildings (1) between it and the area (I), the use of which, as they are very ruinous, is not very clear; but in the central projection (2) there is a niche, above which is an opening about 6 inches

high and 3 feet long. Terminating in this, I observe three water pipes, and it probably formed an artificial cascade, as in the area there is a stone basin evidently intended to receive the water. The use of the niche over which the water fell was probably in order to contain a light to illuminate the cascade when it ran in the dark.

The area S communicates by an open stair (3) with the large terrace T, on which a building called the Palace of Flowers is situated, and which forms also a part of the buildings which surround the area I. Under the side of this terrace, which fronts the area S, are six small recesses. Under its end, which faces its area D, is a kind of cellar, No. 1, with one door. Finally, under its side towards the area I is a long gallery (No. 2) supported by square buttresses, and behind this gallery is another cellar (No. 3) with two doors. The building called the Phul Mahal, or Palace of Flowers, as will appear from the separate plan, occupies the whole terrace T contiguous to the area D and B, from which its outer wall rises perpendicularly; but along the area S there is a walk (1) about 4 feet wide, and towards the area I there is an open terrace (2) as far back as the gallery and cellar. An open stair leads up to this at the west end of the area E. The building consists of a central hall (3) with three small doors towards each side, and another at each end. A man cannot pass any of them without stooping. The end doors open outwardly into wide arches (4, 4). In the centre of this hall has been a cistern and jet destroyed in making accommodation for the family of Kasem Aly. On each side of the hall is an open gallery (5, 5) with a door in each end, like those in the ends of the central hall, terminating in wide arches (4, 4, 4, 4). On each side of the terrace (2) a stair leads up by the walls which bound the terrace. That on the east is for the sake of uniformity, and ends at a false door; that towards the west leads up by an execrable covered stair to the roof that is covered by an abominable parapet wall, 7 feet high, in which there are various peep-holes. Under this, all round, has been a cornice of the usual form, and had this been surmounted by a balustrade instead of the parapet wall, the whole building would have been neat. The building, however, forms a good set of apartments designed for a place

of cool retreat, in which, surrounded by jets of water, the Raja might sit to transact business.

The chief entrance into the area I is by a guard-room (4), which has stone benches for the guards on each side of the passage, and holes at one end (5, 6), I presume for holding ammunition. Adjoining to the guard-room a stair leads up to the roof of the adjacent buildings; and near this is a passage into a retiring closet (8). South from this is the door of a small chamber (9) by which there is a communication with the area B. Opposite to the guard-room is an open gallery (1) for the accommodation of those in waiting. In the centre of this area I has been a reservoir and jet of water. The area P, to which there is admission through two small guard-houses (1, 2,) according to people on the spot has been designed as a kind of theatre, or place for looking at dancers and singers; and the apartments round the area Q were intended for their accommodation to dress and refresh before they began to perform. These apartments have been placed at a distance from those of the ladies, and in the vicinity of where the Raja could go under pretence of business in order to avoid the offence which the ladies might take at his frequenting such company. See addition, No. 4.

Returning to the area II, which was the principal seat of the chief's grandeur and more legitimate pleasures, we find on the ground-floor some large apartments. No. 1 has a large arched gate in the centre, on each side of that a large window, and beyond each of these a small door. Its roof is low, and supported by six Gothic arches, dividing it into five compartments, each of which has a pavilion or coach roof. Behind this is No. 2, a long low-roofed hall, which communicates with the gallery by one wide-arched door and two windows; but is not so long as the gallery, a stair which leads to the upper story being taken from the S. end. Behind it communicates by one small door with a long dark cellar, No. 3, which at its south end, under the stair, has a recess. In the north end of the hall is a small door leading into a small arched room (5) behind, which is a dark cellar (4), the door of which is not above 2 feet high. Opposite to that door the chamber, No. 5, communicates with a suite of three rooms (6, 7, 8), of which that in the centre is very handsome.

It is supposed, and highly probable, that the lower apartments of this area were the wardrobe and depositories of other valuable effects. At the end of this suite is a chamber (No. 9), which completes the north side of the area, and formed the chief passage with two very wide Gothic arches into the ladies' garden, which was separated from the east side of this area by a wall surmounted by a balustrade.

The stair (10) which conducts from these lower apartments to the second story is exceedingly bad, and an irregular and dangerous landing place at its top [see plan of the upper story, No. 25] has two doors, one to the right and the other to the left. The latter forms the communication with the upper parts of the buildings at the west side of the area F; that to the right leads into the end of a very fine open gallery (No. 26), with a flat roof supported on each side by four massy buttresses, and four semicircular arches with fine cornices, so as to have a grand solid appearance, although rather heavy. At the north end, opposite to the door of entry, is a recess with an alcove roof in a very good style.

Behind this gallery is a very fine hall (28), called the Emperor's Throne (*Tukht Padshahi*) in the same style; but it has an alcoved recess at both ends. It communicates with the gallery by a grand door and two very large windows, which have been skreened by fret-work in stone. This differs a good deal from the windows of our cathedrals, and does not equal their appearance, although it has a very fine effect. It is intended to conceal from full view, without excluding the air. In the back wall of this hall are two small windows towards the western face of the castle, and each has had a covered balcony; but these windows are not regular, the one being towards the south end of the hall, and the other being within the northern recess, from which also there was a window that looked into a small chamber (29) at its north end, through which there was a passage to the terrace on the roof of the ladies' apartments. The Raja, therefore, even sitting in state, had an opportunity of seeing what was going forward in that quarter. The style of architecture in this hall, and the gallery before it, will be understood from the elevations accompanying the plans.

Before the gallery is an area (No. 27), open above, but shut in towards the area H by a high parapet wall, so as totally to

exclude a view of the ladies. At its north end is a door, by which turning towards the left, there is the passage to the small chamber (29) above mentioned, through which was the entrance into the terraced roof of the ladies' apartments; and by the right was an open passage along the roofs (30) of chambers 7, 8, and 9, on the ground floor.

At the south end of the terrace No. 27 is a stair, partly open, partly covered. Although tolerably light, and rather wide, being from three to four feet, this stair is exceedingly steep. It leads to the roof of the great hall and gallery (No. 26, 28), which is surrounded by a wall and balustrade, and to some buildings, forming the third story of this part of the building, of which a separate plan is given. In the north parapet, towards the west end, is a small cupola leading to a window, and covered balcony (No. 1) overlooking the terrace on the roof of the ladies' apartments. At the south-west corner is a handsome square room (2) supported by four Gothic arches, behind the southern of which is a semi-circular recess. This room has one door, and two very small windows. At the south-east corner of this terrace is another stair (3), partly covered, partly open, which leads to the fourth story of this part of the building, on the roof of the chamber in the third story just now described. Of this fourth story also a separate plan is given. The small chamber (1) is open towards the north, where it is supported by four slender columns. The area on the terrace in front of this chamber has been surrounded by stone pillars, between which there were screens to conceal the ladies, who might occasionally be admitted. A very narrow passage leads from this small apartment along the stair to a cupola (No. 2) supported by four pillars, which commands a most magnificent view, having not only the whole country, but almost every area of the castle perfectly exposed. This is the highest pinnacle of the building, and has a showy light appearance.

I now proceed to the flower garden (Phulwari) as it is called by the Hindus, or (Khaneh Bag) house-garden, as it is called by the Persians, which is in fact the abode of the ladies, or Zenana, as we call it, from the Persian Zenana Muhal (womens' apartments); but this term appears too plain to Hindustani jealousy, which chooses to exclude altogether the mention of the sex. It forms a large square from the

south-west corner of which the area (H) has been taken; but on every other part it is surrounded by apartments one story high, as will be seen on the plan. The most usual form of each apartment consists of a hall opening towards the garden with a wide door, and having at each end a room, which is lighted by one window, but sometimes receives no air except through the hall. There are, however, several irregularities, as will be seen by the plan. It is probable, that, when not too much crowded, each lady had one of these apartments for herself and slaves. Three staircases, as will appear by the plan (7, 22, 44), led up to the roof near the south-east, north-east, and north-west corners, where there are buildings, to which we shall afterwards return. There are also two private entries from the outside of the castle, marked No. 11 and No. 38. The latter is guarded by two small chambers (39 and 40), which form a projection; but, to my great surprise, there would appear at the other passage (11) to have been no precaution except a wooden door. I am inclined however to suspect, that both these passages were made by Colonel Goddard, to give access to his men, probably quartered in the flower-garden, and that the passage No. 11 had been originally a stair like No. 22, and that the passage No. 38 has been like that marked No. 26, which leads into two chambers projecting in conformity with numbers 39 and 40, and which probably served as baths. The passage No. 18 led into a small area (U) surrounded by nine apartments, as will appear from the plan. Nos. 7, 8, and 9, seem to have been retiring closets, the others surrounding this area seem to have been the apartments of careful women attendants. In the wall between 8 and 9 has been a stair, leading to the terrace on the roof.

The area, called the Phulwari, has probably in fact been a flower-garden, and is divided into numerous parterres by various narrow paved roads, crossing each other at right angles. The flowers of course have long ago vanished.

The chief ornament of this area is a square building called the Aynab Mahal, or mirror of palaces, the residence of the chief's married wife. It is placed near the centre on a terrace (W), to which on three sides there is an ascent by a stair leading to a cistern (1, 2, 3,) in which there probably was a jet of water. On the west side were two stairs, and no

cistern. The building is very clumsy. Each side in front has three doors, and some way above them a cornice in the usual form. Above the cornice is a window with a covered balcony, and the parapet is crowned with a clumsy balustrade. In other respects the whole of each front is a dead wall, varied only by six windows placed regularly indeed, but entirely unornamented, and quite pitiful in size. Within on the ground floor, which was probably the usual resort of such of the ladies, as enjoyed the wife's favour, are nine chambers, and a stair, the distribution of which will be seen from the plan. The rooms 5, 6, 7, and 8, are tolerably light, airy, and high in the roof, which consists of a plain semi-circular arch. The rooms, Nos. 9 and 11 are neat, being octagons with two doors and four windows; two to the outside, and two towards the rooms No. 6, and 8, and five, and 7. The roof forms a hollow hemisphere, and is rather too lofty. Nos. 10 and 12 differ only in being square, and are also very neat. The central room, No. 7, were it lighter, would be also handsome; but its four doors are very low, as the stair passes over one of them. Each door has over it a window; and, had that under the stair been sacrificed, the doors might have been made of a good height. The hemispherical roof, which covers the centre, is supported by four Gothic arches, and within the arches at each end is a semi-circular alcove completing the roof in length.

The stair, which goes up from No. 8, is $3\frac{1}{2}$ feet wide, but very steep. It leads up to the roof, or second story, the form of which will be seen by the additional plan. The terrace (31) is surrounded by a high parapet wall and balustrade, in which, as I have mentioned, are four windows with four covered balconies (33, 33, 33, 33), and it surrounds an elevated terrace (32), and a small building (35) above the stair, through the middle of which there is an arched passage (36). Above this a stair, exceedingly steep, leads to a small platform (38) on the summit, which is covered by a cupola (39) supported on four pillars not quite so high as that above the royal throne, but still commanding a most noble view both of the country and castle. At each corner, above the chambers 9, 10, 11, and 12, is a small square room (34) covered by a dome, too low to have any effect from below. Each chamber has a door, and two small windows.

I now return to the buildings above the roof of the ladies apartments, which is flat. Above the doors and windows their front, towards the area was ornamented all round with a sloping cornice, above which was a low parapet wall, sufficient only to prevent those walking on the roof from falling over; but above the roof on the opposite side, the outer wall of the castle rose 10 or 12 feet higher than the terrace (40), which formed their roof.

Above the stairs Nos. 44, 22 and 7, are three small buildings (41), which cover the stair, and open with a door to each side from the landing place. A stair (42) leads up from the terrace to the small platform on the roof of each of these buildings, on which has been constructed a small cupola or Gunbji supported by four pillars (43). On each of the three corners of the roof of the ladies' quarters, above the apartments 9, 24 and 42 is a square chamber (44), which on two sides towards the terrace has a door and window over it, and a window on each of the two sides, that look towards the country. Each of these latter windows leads to a covered balcony, which of course was carefully covered by screens.

A wretched open hanging stair (46), such as before described, leads to the roof of each of these rooms, which are light and handsome, being nearly cubes. On the outside they have all round a sloping cornice, surmounted by a low parapet wall, which could not conceal from view the ladies, that might ascend, and which of course they never were permitted to do, except in the dark.

Above the chambers 27 and 28 is a small area (47) open above, with a retiring closet (48) behind it; but there is nothing analogous above the corresponding apartments Nos. 39 and 40.

Before the west front of the castle is a large area, not however corresponding exactly with the dimensions of the front, as it does not reach to the southern end, while it passes the northern, as will appear by the plan. It has three gates towards the north, south and west, but none of them is in the centre of its respective side. That towards the west had above it a gallery for the band of music called Noubut, and through this gate came an aqueduct about four feet high, which brought water into the flower garden from a small tank at some distance west, from whence it was raised by

machinery. This aqueduct cut the court into two, so that there could have been no passage for a carriage from the north to the south gate, and horses could only indeed have passed by scrambling over a steep ascent paved with stones, which was in the line of the two gates. Except at the gates the area was surrounded on every side by a high wall, on the inner side of which was erected a very narrow gallery opening towards the area by numerous arches about five feet wide, with buttresses between, of about three feet. The gallery was not subdivided into rooms, but served as barracks for the men, immediately attached to the governor's persons. The roof of the gallery served as a rampart, defended by the outer wall rising into a parapet capable of defence against musketry. The centre of the west face was ornamented by a cupola, supported on four pillars, and overlooking a small tank.

The whole walls are constructed of squared stone, built in the same irregular manner as mentioned in the account of the monuments at Shahasram. The roofs consist of stone beams and flags covered with plaster. The walls in most parts have been plastered, and painted with glaring colours in various rude fantastic ornaments. Man Singha aware of the people, among whom he was placed, introduced nothing of the Hindu mythology into the ornaments; and the only things that could in the least affect the most scrupulous Moslem, are the two elephants on the gate of the palace, and a griffin on the gate at Kothotiya.

MOHANIYA.—This division contains a considerable portion of the table land, the appearance of which does not materially differ, from that already described. The recesses in the sides of the mountains are not so extensive nor magnificent as in Shahasram and Tilothu; but there are here some detached hills, and the spaces between these and the great mass, being in some parts well cultivated, the views there are exceedingly fine. The plain is very fertile, and most fully occupied, so that the land is too valuable to be wasted on useless plantations.

There are 400 houses built of brick; 700 have mud walls, but are two stories high. Of these 400 are tiled, 300 are thatched. All the huts have mud walls; $\frac{1}{6}$ of them may be tiled; a very few belonging to the poorest creatures, are covered with stubble; the remainder has thatch of grass.

Mohaniya, where the officers of police reside, including Estuart Gunj, contains 200 houses, of which some are very large, being inns with very numerous chambers disposed in a long range.

Chayanpur is a good country town of 1,000 houses, neater than usual in this country, and in a very fine situation in respect to fertility, salubrity, and prospects. It was formerly the residence of a considerable Hindu Raja, and afterwards, being occupied by the Pathans, became a favourite residence of some branches of Sher Shah's family. In the vicinity there are many monuments and tombs of these Pathans, and some of them are handsome buildings; but they have eradicated the objects of idolatrous worship.

Bhaguya contains 550 houses. Jahanabad about 200. It has an inn (*Seray*) built of brick, and still in repair, although attributed to Sher Shah. Kargango Pusli contains 125 houses; Bhagawanpur, and Sawar 100 each.

There was a certain Munda, whom people pretty generally call a Chero Raja; but the Pandit of the survey says, that he was a Daitya, who had a brother named Chandu, and both lived in the golden age. These brothers who, according to the Markandiyā Purān, were the chief military officers (*Scnapati*) of Sambhu and Nisambhu, two great infidel (*Daitya*) kings, were killed by Parwati, who on that account is called Chamunda, a title, it is said, composed of the two infidels names. It is further said, that the proper name of Chayanpur is Chanupur, derived from one of the brothers who resided there, while a small temple named Mundeswari, and situated on a hill about five miles east from Chayanpur, was built by the Daitya Munda. If there is any foundation for the Puranic legend, it may refer to some exploits in the Indian warfare of Semiramis; but from the appearance of the ruins I have little doubt not only of the truth of the common report of Munda Raja having been a Chero, but that he was some small chief, who retained a dependent principality long after his nation had ceased to possess the imperial dignity. The town where Munda resided is called Garohat, and was situated on the banks of the Katane, just in the eastern mouth of a valley formed between the great mass and the detached range of hills west from Bhagawanpur. The whole of this valley was originally called Mukeri Kho; but

that name has of late been restricted to a large recess towards its east end, down which the Katane flows. The situation was judiciously chosen for the residence of a person such as I suppose Munda to have been; as it is not only in a very rich country, but has behind it recesses in the mountains that are capable of defence by a small force; and even in case of defeat, the mountains afford a secure means of escape. It would appear from numerous heaps of bricks that the town of Garohat extended about $1\frac{1}{2}$ miles from east to west, and half a mile from north to south: it has not been fortified; but I believe that all the passes into the valley have been defended by lines. I thought that I could trace a very high rampart and wide ditch running in a straight line from the great mass of hills to the detached hill east from Bhagawanpur, and the pass between the latter and the detached hill next to it towards the west, at the village of Suraiya, has been defended by a double rampart of stone. On a little eminence overhanging the Katane at Garohat, have been collected some fragments of images called Hanuman, who at present is a favourite in that part of the country; but none of them have the smallest resemblance to a monkey. I could trace three of them to resemble entirely, what in the ruins of the Behar Cheros were called Ganesa, Hargauri leaning on a bull and lion, and Narayan riding on Garur. A head also resembled that of the image called Vasudeva. The works, which by the vulgar are attributed to the Cheros, extended also all along the north side of the detached hills, both east and west from Garohat, where they have left several tanks and reservoirs, and some scattered images. Among these Rumajaya, my native assistant, on the road between Majhar and Garohat, observed a Buddha seated in the usual posture, the most remarkable of these detached works is however the temple of Mundeswari already mentioned. I could not conveniently visit the place, but sent a painter, who drew the most remarkable part (see drawing No. 4). The temple, now very ruinous, has been an octagon supported by four columns (E) of an order common in Behar, and has had a porch supported by eight similar columns: having had four doors, it is much lighter than usual, although one of the doors is shut behind. In the centre is a Siva Lingga (C), with four human faces on the phallus. The image called Mundeswari (B), or the god-

less of Munda, is an armed female, having many hands and riding on a buffalo: it probably represents the wife of Mahisasur, a celebrated antagonist of Parwati: the hair and ears evidently resemble those of the Buddhas: it is placed in the door, behind which is a small cavity without any external opening. The inscription (D) is on a loose stone at some distance from the temple; were it entirely legible, it is so short that it could throw little light on the subject. The Pandit thinks, however, that he can discern the word Mundeswar, which being in the male gender would be applicable to the Lingga, and not to the goddess. The door of the temple towards the porch (A) is exceedingly fine, but throws no light on the subject; the figures on it representing dancers, musicians, and such like personages. About 2000 votaries assemble here at a fair (Mela).

A family, the chiefs of which have been styled Rajas of Chayanpur, pretends to the honour of having expelled the Cheros; but the whole history of this family is involved in the utmost difficulty, and most of the Sakawar tribe to which it belongs are so violent, that no intercourse with them could be procured. The agent of the head of the family pretended that he was descended from a Lakshmi Mal, who came from Sikri Fatchpur, near Agra, and after 52 generations was succeeded by a Sarivahan Raja, who was 10th ancestor to Draponath, the present representative of the family; but very little reliance is to be placed on this account. The agent pretended that every Bhat (genealogist) could give me a list of the succession, but I applied to several, who all denied any such knowledge, and said, that they had heard only of Raja Sarivahan, the son of Chitra Sen, and of his having died without male issue. All other castes, it must be observed, attribute the overthrow of the Cheros to the Siviras, and these, as I have already mentioned, were expelled by the Paramarkas. I therefore conclude that the Sakawars are one of these predatory tribes, who expelled the latter and kept possession of the country until the Paramarkas were restored by the Muhammedans. So ignorant of history was the agent who favoured me with the preceding account, that he stated Lakshmi Mal, who lived 62 generations ago, to have been employed by the Muhammedans to expel the Cheros. The family pretends also, that not only by far the

greatest part of this district, but a considerable portion of Benares was included in their dominions; but, if all claims of a contrary nature and equal authority be taken into account, little reliance can be placed on this assertion. It is not even known to which tribe this family belongs, as the Sakawars partly call themselves military Brahmans, partly Rajputs, just probably as each title happened to be most in credit, when the ancestors of each party began to adopt the doctrine of caste. Some allege that Lakshmi Mal and Sarivahan were Brahmans, others allege that they were Rajputs, and others, that the one was a Rajput and the other a Brahman, while the present representative is a mixture, the daughter of Sarivahan having married a person of the caste different from her own. There can however be little doubt, that Sarivahan Raja of Chayanpur had raised himself to considerable power, and had rendered tributary to him most of the petty landholders in the vicinity. The ruins of his fort and house at Chayanpur indicate his being a person of considerable note, and the tribe has still many small estates, is numerous and very violent.

The fort of Chayanpur, surrounded by a ditch, has a rampart of stone with battlements, a round bastion, at each corner, a large handsome gate in the northern curtain, and a smaller one towards the south. In the middle of the east and west faces have also been semicircular bastions. The whole extent, including the ditch, is 390 feet from north to south, and 369 from east to west. The space within has been filled with buildings, partly brick partly stone, with several very large wells lined with stone, reservoirs for jets of water, and other comforts becoming a family of rank. Sarivahan is by many said to have been the first person of his family that rose into great power, and many allege, that he was the last who retained it; while others allege, that his son and grandson continued to enjoy the estate. One thing is universally agreed on, that the last Raja in the male line was destroyed by the imprecations of Harshu Pangre, his purohit. The monstrous legend concerning this personage is the only one circumstance, about which people are agreed, being altogether wild and impossible; and it seems to me an invention of very modern date, that is since the Company's government has checked the Muhammedan power from injuring the Hindu

worship; for the enraged ghost of this Brahman, who died in sitting *dhurna** on the Raja, is now the principal object of worship in the vicinity, and several buildings have been erected on the spot, within the fort, and close to the monument of a Muhammedan saint, a place, into which no devil durst have thrust his nose, so long as the Muhammedan officers retained authority. I have little doubt, that the Chayanpur Raja, having as usual become refractory, his fortress was destroyed by the Moslems, who settled a colony of Pathans at his capital, and rendered most of his vassals independent of his authority, but did not strip him entirely of his estates. This seems to have been about 250 years ago; and soon after Bhagawan Raja of Chayanpur, seven generations ago, retired to the banks of the Suura, where he built a town named after himself, and a mud fort suitable to his reduced circumstances. Within this he built a small castle of brick, now totally ruinous. The representative of the family can in fact trace his pedigree no higher than this person, who is usually said to be descended in the female line only from Sarivahan, but this may be owing merely to the legend, in which the enraged Brahman pardons a daughter of the Rajas, who had given him a drink, and the persons descended of Bhagawan claim to be Sakawar Rajputs, which they could not do, were they descended of a Sakawar female. That their claim is generally admitted by the Rajputs of the district, we may be assured, as one of them is connected by marriage with the family of Bhojpur. The present owner of Chayanpur, although called a Pathan, is in fact of the Sakawar family, his ancestor, in order to save his estate, having adopted the faith. The priest of the enraged ghost, who destroyed Sarivahan, a Kanoj Brahman is now making a considerable profit, all those in distress and fear, flocking to induce him to make burnt offerings (*Hom*). He has of late been disturbed by a person, who says, that he is descended of the ghost, and claims a share. This pretender is the most violent fellow, in talk at least, that I have ever seen. He is a good looking young man; but, in order to intimidate his adversary, he goes nearly naked, and has painted himself red

* *Dhurna* signifies sitting at the door of your enemy or debtor without food, until justice be done to the aggrieved.—[Ed.]

white and yellow, in large irregular patches like an American Indian. At Yamaya, about five miles north from Chayanpur, I was shewn what is called the house of the Brahman Harshu Panyre, whose ghost is now the object of worship; but it seems a work of greater antiquity than the fort of Chayanpur. It seems to have been one of the small mud castles usual in the country. Near it has been a temple, now reduced to a square heap of bricks and stones, many of which have been carved, and have contained images; but these are so much defaced, that only one can be determined. This represents the monkey Hanuman, or the great hero (Mahavira), as he is here more usually called. The style of the carvings resembles that of the Cheros, to whom the temple probably belonged.

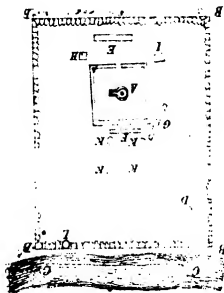
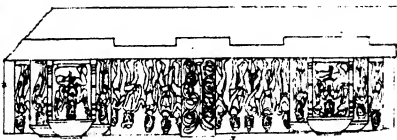
Among the Pathans of Chayanpur was an Ahtiyar Khan, whose eldest son Futeh Khan married a daughter of Sher Shah. Ahtiyar died in peace, and is buried in a monument little if at all inferior to the tomb of the king's father, and now in a better condition. Only a few trees have been permitted to take root, and they have been occasionally stunted by having their branches lopped, but the roots have never been removed, and are now tearing a corner of the wall to pieces. The Mojawer has 80 bigahs of land, and 5 anas a day, which no doubt were settled on his ancestor by the Pathan lord (*khan*), in order to attend the tomb; but the Mojawer directs all his attention to the tomb of the blessed Asman Shah; for a dead saint is often much better than a living one, and worth a hundred dead lords. The blessed Asman is indeed a good deal attended; but his tomb being in another division, I shall return to it again. The inside of the dome of Ahtiyar Khan's monument is an octagon of 53 feet in the shorter diameter. The wall all round the niche for prayer has been plastered, and covered with pious sentences written in black, and these perhaps extended all round the dome. The wall of this is 12 feet thick. The gallery round it is 9 feet wide, and the buttresses which support the arches in front are 6 feet square. The style of the building is exactly similar to that of the monument of Huseyn Khan at Sha-hasram, only that the great dome is surmounted by a small cupola, as in the tomb of Sher Shah. This monument is surrounded by a square area enclosed by a high wall, at each corner of which is a square chamber, surmounted by a very

clumsy dome. The gate is large, and, were the masonry good, would be rather handsome. The area contains a number of fine trees and palms, which give the whole a grand air, especially as a hill overhangs it to the west; and between the hill and tomb there is a fine little river, so that the situation is most judicious. The tomb contains 25 graves, 12 of which have been destroyed by the water dropping through the roof. Besides the grave of Ahtiyar Khan, distinguished by a column at the head, there are entire the graves of four grown males, three women, five male children, and one female. No tradition remains concerning the fate of Futeh Khan, although there is not a doubt that he and his children suffered in the wreck of his kinsman's family. A younger brother, Daud Khan, resided here, and at the time of the Mogul's success was erecting several buildings. His tomb is a little north from that of his father, and is much smaller. It is square without, and an octagon within, and would no doubt have been covered with a dome, but when he met his fate that had not been commenced. The Moguls have permitted his body to be buried within.

About three miles and a half east from Chayanpur is a tomb much like that of Daud Khan, but the dome has been completed, and the whole is in good repair; yet nothing is known of the person who is buried in it, except that he was a Pathan named Mauli Khan, and that he communicated his name to an adjacent village, which now belongs to a Hindu, and has done so for four or five generations.

RAMGAR.—The whole of this division is level, and in general it is of a rich soil very fully occupied, and too valuable to be wasted in useless plantations. No house is built of brick. About 650 houses of two stories have mud walls; 100 of them are roofed with tiles, and 500 with thatch. The tiles seem to be making rapid progress, as they have been introduced within two or three years. All the huts have mud walls; thirteen-sixteenths thatched with grass, three-thirteenths with stubble, sugar-cane leaves, or a kind of rush (*Scirpus*) called *Teni*. Ramgar, where the office of police is situated, contains about 200 houses, but the best place in the division is Angoti, which contains 500; Kota, Daharak, and Ketheju may each contain about 300; Morat 250; Barari, Mukhrao, and Mujan 200; Narahan 150; and Maharatha

ॐ नमो भगवते वासुदेवाय

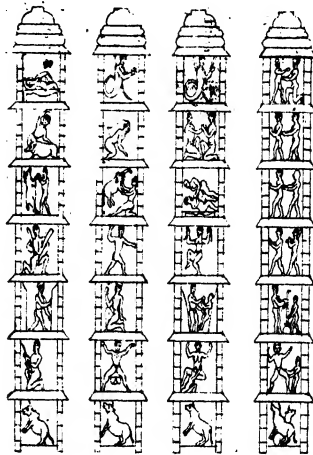
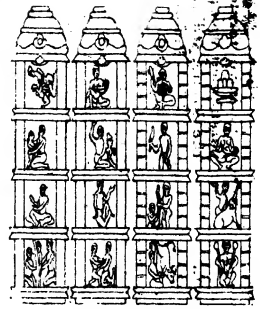


is evidently Varaha, although different from that at Bara-gang, and is still an object of fear, as many disputes are settled by swearing in its presence. Two smaller images resemble the Surya on the obelisks. On the bottom of a long slab there is the representation of a male and female, with their arms round each others necks. Above them is a figure of the human hand between the sun and moon, the idolatrous representation of Allah, used by the Muham-medans in the south of India, and probably carved by the zealous chief, who broke the images, in order to show the triumph of his faith. On a long slab are five figures, some of them certainly, and most of them probably females. With the three on the slab upon the terrace, they probably formed a group, similar to what in Behar is called the Ashtu Saktis. They are, however, too much defaced to admit of this as a certain conclusion. Among other fragments may be traced the door, very rude, as are all the other carvings. Each side as usual has at the bottom a human figure. The lintel, in place of a Ganesa, has on its middle a short inscription, not entirely defaced, of which a copy is placed above the drawing of the obelisk. Three of the words the Pandit can read, and from these he infers that the work belonged to the sect of Jain, that word being one of the three which are legible. But Jina is a name for the lawgivers of the Saugatas as well as for those of the Arhitas, and I am inclined to think from the style of all the works, except the obelisks, that the Cheros have had here a temple, which was destroyed by the Suir, and that these erected their obelisks to denote the triumph.

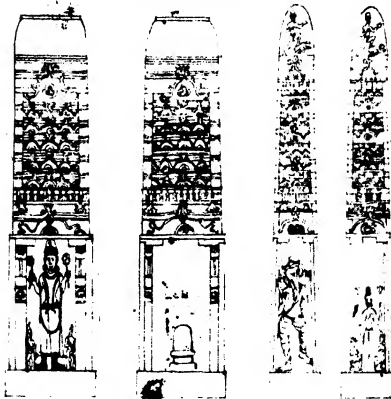
At Baidyanath, about six miles south from Ramgar, is the ruin attributed to Raja Madan Pala the Suir, which has been mentioned in the historical notices. Here is a small temple containing a Lingga (*Plate 6, A*), which is evidently quite modern, and built of various fragments of an old one, which probably consisted chiefly, if not entirely of stone, and has been very much carved, but not large. It has occupied a square elevated space (BB BB) on the east side of an old water course, which now forms a marsh (C C), but was once probably the Durgawati. On the square space are a great many stones, very much carved, and containing a vast variety of figures, better executed than those at Darauli. There are

in particular a great many square obelisks of a different form from those at Darauli, but also very common in the works attributed to the Suir. Every one is broken more or less; but at D in the plan is the most entire, and the four sides, so far as remain, are copied in the drawing. In order to show the form complete, I have had drawings made from three of these obelisks (*Plate 7*), that I found pretty entire at Bhuyili, about 10 miles east from Chandalgar in the district of Merzapur, where there are many remains of the Sivas. In the same style with these obelisks are many stones, three or four feet long, and eight inches or a foot wide, which contain figures on one side only, and have probably been built into the walls for ornaments. The figures on both these kinds of stones have less connection with the common Hindu mythology, than any I have ever seen, even in the heretical temples of Behar or Nepal; but we see here several indecencies, which in the south of India have been carried to such a gross length; and which have been avoided in the more ancient temples of Behar; for the Lingga common there has in general little or no resemblance to what it is intended to represent. As these figures are curious, I have in the several drawings (7) given a great part of such as are entire at Baidyanath; and copied from the various obelisks and long stones above mentioned. So far as I observed, no regularity is observed in the position of the different figures, nor are all those on any two stones the same, but the same figure may be observed in many different places. Some seem to represent the ordinary occurrences of life, such as a woman suckling her child, or churning butter, or a porter carrying a load. Others are quite monstrous, such as a man riding on a serpent. A figure often repeated seems to represent a butcher killing a cow or buffalo; for he has the animal suspended with the head down, as if about to remove the skin. From this perhaps we may infer, that the Sivas, if they did not eat the ox, at least devoured the buffalo, a practice still followed in Nepal. Besides these obelisks, and the stones carved on one side with human figures, there are numerous columns, pedestals, cornices, capitals, &c. and a remarkable circumstance in their style is, that the foliages in many parts are not in relief, but are cut into a level surface, as in a seal. This has a very poor effect, as may be especially

ASIATIC SOCIETY



2
Obelisk at Darauli



ॐ नमो भगवते वासुदेवाय ॥ ३ ॥

seen on the lintel (*Pl. 6, E*) lying before the door of the present temple, where the lions' heads in the centre are carved in relief with a very fine effect, but at the two sides the foliages cut into the stone have little or no show. The four most remarkable stones seem to me to have formed the niche, in which the image originally worshipped was placed. That (*Pl. 6, F*) which was undoubtedly the throne, still remains in its place, behind the present temple, and has before it the bases of four columns, which supported the roof of the shrine, and towards which the figures are turned, so that the door must have been to the west, while that of the present temple is towards the east. The figures represent two dancing girls, with each a band of music. At each end seems to be a Devata with some attendants. In the centre are some animals on curious wreaths of carving. The stone *G, Pl. 6*, lying near the above, seems to have covered the niche, and represents the Hindu planets, nine in number. In the centre and at the two ends are three Devatas. The stones *H* and *I, Pl. 6*, now placed erect near the door of the present temple, appear to me to have formed the sides of the niche. Their general plan and ornaments are sufficiently alike for the purpose of symmetry, although there are small differences in some of the figures. No traces are to be discovered of the image, which occupied this shrine, and which was no doubt the principal object of worship; although there are also many Linggas scattered about, and which no doubt belonged to the old temple. One of the pedestals of the columns which has supported the old shrine is drawn at *K, Pl. 6*, which will in some measure show the nature of the order. The capitals are depressed, and have numerous flutings on their sides like those in the Elephanta Cave near Bombay. The shaft is circular. The inscription (*L Pl. 6*), formerly alluded to, was found on the shaft of a column at *L*, among the fragments heaped up to form a fence round the temple. If the 700 annexed to the name refer to the year of the era (Samvat) at present used, it will give A. D. 643 for the time of Madan Pala or Magaradhaj Yogi, which agrees very well with the time, when I have supposed the Siviras to have governed, being 82 years later than the inscription of Phudi Chandra, the last probably of the Chero princes. No Pujari is at-

tached to the present temple, but 400 or 500 people assemble at the Sivaratri.

SANGYOT.—The country entirely resembles Mohaniya, consisting partly of a fine plain, partly of a table land, and partly of fine valleys lying between the great mass of hills and some detached ridges, where the scenery is uncommonly fine. The plain is fully occupied, but somewhat bare of trees, or rather has too little variety in its plantations. Three houses are partly built of brick. One at Masui, belonging to Churagh Aly, lately Kazi, is a considerable building, and looks well at a distance. There are 1000 houses of two stories built of mud, 200 of them tiled, and the remainder thatched. Several of them are very large, especially the mud castle of Amao, also belonging to a Muhammedan family.

Although the level country is very populous, there are scarcely any towns. Sangyot, where the office of police is situated, is a very sorry place, containing about 100 houses; Karodiya and Sirbhit may contain a similar number.

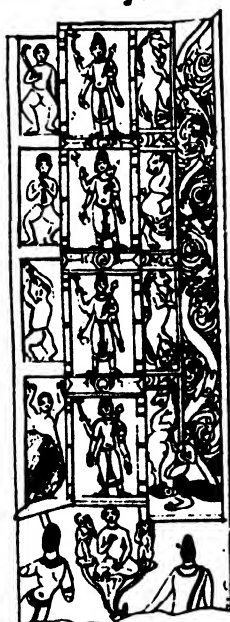
There are in this division some considerable remains of the Suir, and the most remarkable is called Patana, from having been a capital city, or Nindaur, from its having been the residence of a Nindu Raja of the Suir or Sivira tribe. It is also often called Srirampur Patna, from a village of the former name, that now occupies part of the ruins. From the name and appearance of the place, there is some reason to suspect that this may have been the abode of the supreme chief of the Sivira tribe. The chief ruin is a mass of rude stones, broken bricks, and earth, extending 780 feet from east to west, and 1080 from north to south. This is composed of five unequal masses, very irregular in height, but in most parts from 40 to 50 feet above the level of the plain. At the distance of three and a half miles it has the appearance of a small hill. There is no appearance of a ditch, nor of any other fortification. East from this great mass is another nearly of the same length, but narrower, and not near so high. Its south end is called the Charmar Toli, or shoe-makers' quarter. On its north end are two ruinous mud castles, built by late Zemindars, but now decayed. North-east from this a little way is the village called Patana, or the city, from which we may perhaps infer that the town was in



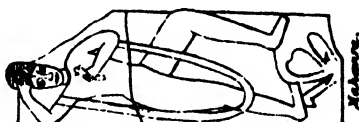
Images at Mar



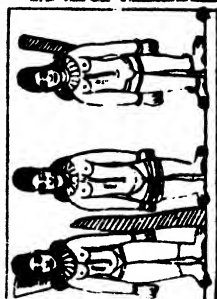
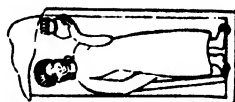
Mahamra, or Worshipped Monkey - at Bhili.



Carved Stone the side of a niche from Mar



Mahamra.



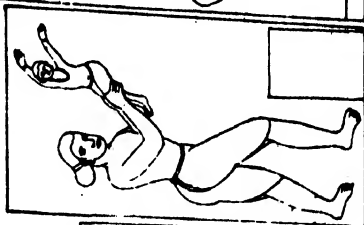
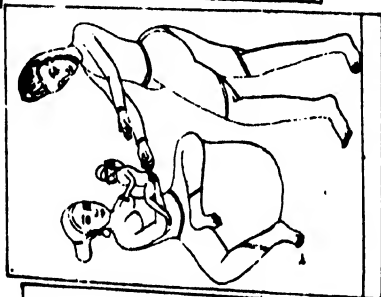
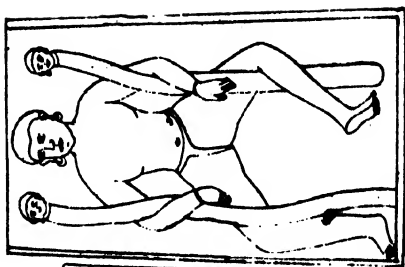
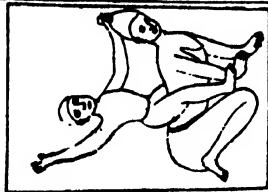
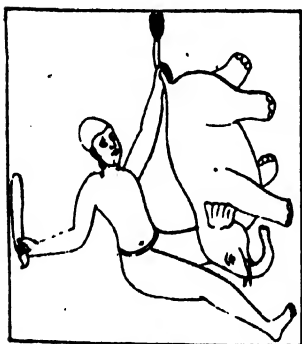
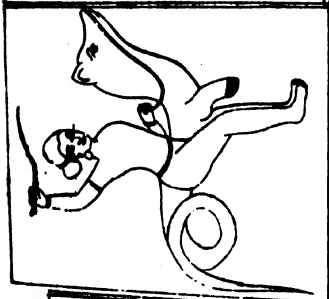
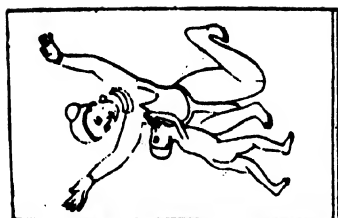
Images at Mahamra, Pabli.

that quarter; but, consisting merely of huts, has left no traces. Under a tree near this village a Lingga has been placed, and surrounded by a wall, within which have been collected some broken images in the style of those at Baidyanath, especially fragments of the quadrangular obelisks. One stone, *Pl. 9*, No. 4, is rather remarkable, containing three female figures with ruffs, like those used in the reign of Elizabeth, and probably the dress at the court of the Siviras. The largest image, and which, probably, was that originally worshipped, represents Mahavira, the warlike monkey. West from the great mass, and north from the village of Srirampur, is another considerable elevation of stones, brick, and earth, like that called the Shoe-makers' Quarter, but having no appropriate name. South from Srirampur is a circular mound, pretty high, and called Baghban, or place of refreshment, probably because the people of the village go there in the evening and sit under a tree on some stones, which they have collected from the ruins. It was probably a temple. Three of the tanks drawn in the plan, although they have Hindu names, were probably dug by the Muhammedans, as their greatest length is from east to west, and as the tomb of Saiud Aly, lately mentioned, is on the side of the most considerable. About a mile south from Nindaur, at the bottom of a small hill, is a village called Pateswar, perhaps from having been the residence of the Raja's spiritual guide. Under a tree at this place there have been collected many fragments of carved stones, such as are usual in the works attributed to the Suir; and lately, in cleansing a tank, there was found a large image of Mahavira, which, after having been disgraced, has again come into favour, and is well anointed with oil and red lead; but it is half hid in a terrace of clay, on which it has been placed. As the Mahavira or Hanuman of the Suir differs a good deal from the manner in which he is now usually represented, having no resemblance to a monkey, except in being provided with a long tail, I have given a drawing, *Pl. 9*, No. 2, taken from the ruins at Bhuyili, in the Merzapur district, where the image is entire; and, so far as I could judge from the parts remaining or visible here, quite the same with those at Nindaur and Pateswar.

At Mer, towards Chayanpur, has been a temple of the Suir, very much like that of Baidyanath; but here the foun-

dations of the temple remain, forming a square platform 4 or 5 feet high, with a projection from its north side. The space within is filled with ruins, besides which many stones highly carved are scattered about; and it would appear that the whole outside of the building has been covered with small images of men, beasts, and gods, or with foliages and carved mouldings. A Lingga has been placed on the ruin, and has a priest of the sacred order; but great pains have been bestowed in destroying the images, and a few only can be traced. A Ganesa with 14 arms, a Nrisingha supporting a religious person reclined against an immense Lingga, and a Lingga with four heads supported by a fish, are the most curious, and drawings have therefore been given (*Pl. 9, No. 1*). The niche for containing the image, like that at Baidyanath has been thrown out, and only one of its sides, of which a drawing has been given (*Pl. 9, No. 3*), is tolerably entire.

Among the tribes, which on the expulsion of the Paramarkas seized this country, the Bhars seem to have held a great part of this division, and still have considerable estates. Of late, having been restrained from former impurity, they have become ashamed of their tribe, and are highly offended at being called by any other designation than Parihar Rajputs; although in an inscription, dated only (Samvat, 1858), A.D. 1801, the chief of the family plainly acknowledges the term Bhar. They seem formerly to have lived in very excellent style, and the ruins of three stone castles, which they have at different times occupied, are still in no great state of decay, the walls even of Ramgar, the oldest, being still pretty entire. This building, which is placed on the steep ascent of a hill, commanding a narrow passage into a very wild valley, is curious. The stronghold is nearest the foot of the hill, and consists of a square space surrounded by a wall about 8 feet high, pierced with loop-holes, and having an open terrace towards the pass. There is no appearance that this was ever roofed. The four houses higher up have been roofed, and two of them have been subdivided into apartments, a third probably served as a hall, and the lowest as a kitchen. The masonry is neater than usual, the rows of stone being pretty regular; but that seems entirely owing to accident, the stone of the hill being by nature divided into thin layers of nearly equal thickness.



Various Figures from Obelisks and Ornamental Stones at Babylon.

ASIATIC SOCIETY

In the pass under this dwelling has been a reservoir lined with cut stone, at the end of which is an image (plate 8, No. 4), and still an object of worship. It resembles the female image killing a buffalo, so common on Kauya Dol, in Behar, and perhaps, therefore, is a work of the Cheros. It is called Nula Bhawani.

Raghuvir gar and Syamal gar, the two more modern forts of the Bhar tribe, have more resemblance to European castles. The former is judiciously situated on a low rocky ridge, extending west from the village Pateswar, already mentioned. It occupies the whole summit of the ridge, which has been separated from the village by a deep ditch.

EXPLANATION OF THE PLATES IN THE PRECEDING CHAPTER.

Plate I. to face p. 414.—The drawings in this plate are described in pages 414 and 415 and named on the figures.

Plate II. to face Dedication.—This is the tomb of Sher Shah at Shahasram, described at pages 256, 257, &c.

Plate III. p. 425.—Island on which Sher Shah's tomb is built.

Plate IV. p. 446.—Ground Plan, &c. of the Muhal Saray described at pages 439 to 454.

Plate V. p. 456.—No. 1, Temple of Mundeswari described at p. 456 and 457. No. 2 is a Cheros Image described at p. 431.

Plate VI. p. 463.—Suir Ruins—Temple of Madan Pala described at p. 463-464 and 465.

Plate VII. p. 465.—Obelisks from the Ruins of Baidyanath.

Plate VIII. p. 469.—Nos. 1 and 2, Figures from the Obelisks at Baidyanath. No. 3, a Jain Image from Masar. No. 4, see p. 469.

Plate IX. p. 467.—Images from Nindaur Patna, described at p. 467 and 468 as numbered.

. In consequence of some alteration in the Nos. of the drawings since the letter-press was printed, the above numberings are the correct ones, without reference to the Nos. printed in this Chapter.

CHAPTER II.

POPULATION OF SHAHABAD—THEIR CLASSIFICATION, DISEASES, MANNER OF LIVING, ETC. ETC.

By the natives of this district the people are divided into four classes: gentry,* artificers,† traders,‡ and labourers;§ the observations made in the account of Behar, are applicable to this district and need not be repeated. I have only to observe, that here a very large proportion of the gentry hold the plough with their own hand; at least two-thirds of the artificers who cultivate, do so as day labourers, and not above one-third hold the plough. Taking as a guide this estimate, and the quantity of land said in each division to be cultivated by one plough, I have calculated the number of ploughmen required, and from them the number of able-bodied men in the two classes of gentry and cultivators. Where the climate is healthy, I allow, as in Behar, 475 persons for every 100 able-bodied men; but in the divisions liable to many fevers, I allow one able-bodied man only to five persons. With regard to the traders and artificers, I procured an estimate of the number of houses belonging to each, and from thence calculated their number. On these grounds I have taken the number of inhabitants at 1,418,780; and, having procured an estimate of the number of persons, according to their various ranks in the families of each division, I find, that the above population will in all give 217,525 families. The Pandit of the survey in his inquiries after the castes formed an estimate of 181,733 families, which is short of my calculation by about 16 per cent. Although the general amount of the Pandits estimate does not differ very materially from mine; yet as in Behar, when I come to particulars I cannot entirely follow his authority. In particular I find it necessary to diminish the number of Muhammedans, that were stated to him, and to increase the proportion of Hindu gentry. I am convinced, that my estimate is not overrated; for the number which I have taken allows $3\frac{1}{5}$ bigahs of land in actual culti-

* *Ashraf.* † *Pangeh, Pauniyas or Karigur.* ‡ *Beniyas, Bakalis or Dokundars.* § *Karindagan.*

vation for every person, while in Behar each has only $2\frac{1}{2}$ but owing to the neglect of the landholders, the soil of Behar is no doubt more productive than that of Shahabad.

The number of men said to be absent in the regular army was stated to be 4,680, which is a much greater drain, than exists in any of the districts hitherto surveyed, and I suspect is very considerably underrated. The Rajah of Bhojpur assured me, that from Serkar Shahabad alone, forming the northern half of the district, the number amounted to at least 12,000. The numerous gentry are well suited for the purpose, and a great degree of poverty renders them willing to enlist. The number however employed is far from being burdensome on the population. A great many of them, I observe, are married; but their wives remain at home, and do not follow the camp, so that their children are not injured by the hardships of a soldier's life. The district being in the route of most corps passing from east to west to be relieved, the men have frequent opportunities of visiting their homes, and usually remit as much money as pays the rent of a good farm, upon which their family lives in comfort.

All the gentry, who are rich, decline of course service, and far the greater part of the poor do not relish regular discipline; although for a much lower reward than is given to the soldier, they would willingly serve as irregulars or messengers. The people of this district have long had the character of being inclined to robbery; and audacious depredations are still occasionally committed, although not so often as in Bengal, and much less frequently than when the Zemindars managed the police. So far as I could learn, however, it is not the gentry who have these predatory habits,[†] but chiefly the low caste of cowherds (*Ahir*). Many tribes of the gentry are still however exceedingly violent in their disposition, and inclined to use force against their neighbours. In general the salutary check of a standing army prevents this from breaking out into open hostility; and their violence is allowed to vent itself in endeavouring, by all possible means, to thwart each others views, even at the sacrifice of their own profit.

The whole men, who by birth should be soldiers (*Dival-bandh*), amount to 53,702, of which 2,095 are employed in the district, and 7,331 have gone abroad, either in the regular army or for private service; while only from 3 to 400 strangers have come here in search of bread.

The number of penmen also employed abroad far exceeds that of strangers employed here, and this is attributed to poverty, the same cause which sends the swordsmen into other countries. Commerce is carried on almost entirely by natives of the district.

The people here are inferior in industry and agricultural skill to those of Behar; and this, together with their violence of temper, has occasioned the poverty which has compelled so many of the higher castes to work, or to go abroad in quest of service.

The manners of the women are as strict as in the country parts of Behar, nor are there any small towns where the dissolute meet encouragement; yet the men are just as jealous as those of Behar. Premature marriages among some tribes are here on the same footing as in Bengal, that is, consummation takes place before the age of puberty. This custom however, has not extended far; and the people are generally strong, and tall. The Pamar Rajputs, among whom the custom of early consummation is adopted, form a striking proof of the evils of this custom; for among them I did not observe one good looking man, except the Raja Jaya Prakas, and most of them have the appearance of wanting vigour both of body and mind.* This custom, so far as it extends, and the great number of widows condemned by rank to live single, no doubt prove some check on population.

The practice of inoculation for the small-pox is not near so common as in Bengal, although of late it has become more frequent than formerly. The spontaneous disease, however, is certainly in general much less fatal than in Europe. Vaccination has made little or no progress among the natives. Fevers are exceedingly common in the immediate skirts of the hills, so that Tilothu, everywhere close in their vicinity, is very unhealthy. The banks of the Ganges also are unhealthy, and the bad air extends a considerable way into the interior, owing to the country in that direction being overgrown with forests, and much neglected. The middle parts of the district are tolerably healthy, although in general inferior to the parts of Behar, that are similarly situated. The autumnal epidemic is always the most severe. The people here also

* Early marriages in Ireland produce similar results.—[Ed.]

complain, that the country has within these three years become more unhealthy; but as I have heard similar complaints in every district where I have been, I suspect, that they are owing to the usual custom of praising old times. It is farther alleged in the vicinity of the Ganges, that affections of the spleen have of late been a more common accompaniment of fever than formerly was usual.

Fluxes and choleras are not at all common; and the Sannipatik Zuhurbad or Nuzleh is rare. The people here, as a remedy for cholera, employ tight ligatures passed round the larger joints of the extremities. Both leprosies are less common than in Behar, and it is said were formerly very rare.

The great leprosy is called Sonvaheri and Khor. By some these names are considered as denoting two stages of the same disease; the first being applied to the incipient malady, the latter to the confirmed. Others again allege that these names imply two distinct diseases; and I suspect that in fact two diseases have been often confounded, one being attended with a great insensibility of the parts affected, and the other running more to ulceration. So far as I could learn, the poor who are affected in this district are never drowned. The white leprosy, here called Charak, is pretty frequent. I saw no persons who were entirely white, but I heard of a good many. The chronic swellings of the throat, legs, &c. are also more rare than in Behar. Cutaneous disorders are not more common than in Behar. Women, it is every where alleged, are less liable than men to ringworms. The itch is prevalent in the cold season, and disappears in spring.

In the narrow unhealthy territory between the hills and the Son, I heard of two diseases as endemic. One called Dethori would appear to resemble the whitlow; the other, called Dakshini, is an eruption of small painful ulcers, which last four or five months.

ON THE CONDITION AND MANNER OF LIVING OF THE PEOPLE.—The rate of expense of the lower classes is rather higher than in Behar. Only three families, the Raja of Bhojpur, his kinsman Sahebzadah Singha, of Jagadispur, and Aly Hoseyn, of Koyatur, live in the style becoming gentlemen; and the second of these, although his expense is ample, keeps such a motley crew of dependents, that he has too little left for the support of the splendour becoming his

high rank. European furniture or equipage have not been introduced. Hawking and shooting are the favourite amusements of the great. Very few of the natives appear abroad armed, although they are of the most warlike habits, and at home are well provided for self-defence.

The expense of marriage is fully as ruinous as in Behar, and extends not only to the Hindus, but to the Moslems. Aly Hoseyn complained of the burthen; but said, that unless a man wished to appear mean in the eyes of all his Hindu neighbours, it could not be avoided. The Raja of Bhojpur, when I saw him, was preparing for the marriage of a daughter, which would cost him 20,000 rupees, although he is a very frugal man, eagerly engaged in paying off the debt with which his estate was left encumbered.

The expense of funerals is here also moderate; nor do the people in general give to their priests so much in proportion to their income as is done in Bengal. I did not hear that any one was suspected of hiding treasure.

A few of the brick and stone houses are covered with tiles. The houses with two stories built of clay, in general, as in Behar, consist only of two rooms, one above the other; but in Tilothu the Muhammedan merchants have some large buildings of this kind, fully as good as those of Phulwari. Some castles of clay are large buildings, and at a distance look well, but a near approach discloses the utmost meanness and want of comfort. Tiles as a roof, both in clay-walled houses and huts, are more common than in Behar; and the advantage is so great, especially where the country is fully occupied, that roofs of this construction seem to be rapidly on the increase. These clay houses have wooden doors, and if there is any window, it has wooden shutters; but many are without any aperture of this nature. Fewer of the houses in proportion are whitewashed or painted than in Behar. A house of two stories with clay walls, covered with tiles, consisting of two chambers, one above the other, and from 10 to 15 cubits long by six wide, costs at Arah from 70 to 100 rupees (about £10). One of the same materials and dimensions, but only one story high, costs from 20 to 40 rupees. Very few of the huts have wooden doors, and they seldom have any window. The door, indeed, in many is always open, a hurdle even to shut it being considered as too

expensive.* The common size of the hut is from 11 to 13 cubits by from 5 to 6. The poor have one hut; the rich have more in proportion to the number of the family. The roofs are still more seemly than in Behar; even those made of tiles being very rude and so flat, that few of them turn rain. The ridge is nearly straight, and is supported, as in Behar, by a beam going from one gable end to the other. Each side of the roof, as usual in India, is formed of small sticks and bamboos crossing each other at right angles, and tied together so as to form a parallelogram of the size required. This is laid sloping on the walls and ridge pole, but is not supported by rafters and beams, as is usual in Bengal. In the northern parts the two sides of the roof meet in an even line at the top, and are covered by thatch, so as to prevent the rain from coming through the joining; but in the south the same effect is attempted to be produced by making one side project beyond the other, but this is seldom effectual. The grass used for thatch here is very inferior to that procured in Bengal, but is better than stubble. The poor often use the leaves of sugar-cane, which are still worse than stubble, and in some places is used a kind of *Scirpus* (Narai) that is worse than either. Two other plants, the *Bagai* and *Teni*, are used for thatch, and are bad as the *Naria*; but I had no opportunity of examining their botanical affinities. Except in this greater rudeness of roof, there is no difference in the huts or furniture of this district from those in Behar.

Although a vast proportion of the women are of tribes originally from the western provinces, yet, except in Arah, many fewer than in Behar use the petticoat (*Lahangga*) and bodice (*Korta*), and none of the Hindu women have adopted the drawers of the Muhammedans.

Although, as in Behar, the Hindu men of rank have in a great measure adopted the Muhammedan dress, when in ceremony, and especially at marriages; yet in their ordinary dress almost every Muhammedan now uses the Hindu fashion. Exclusive of Patna and Gaya, where much more luxury prevails than in any parts of this district, the people here are

* What an idea this simple fact affords of the poverty of the mass of people!—[ED.]

provided with clothes and shoes nearly as in Behar, and they are nearly as dirty, although I nowhere saw them lousing each other in public.

Not above 40 families have their women adorned with jewels, and fully bedecked with gold and silver. About one-sixteenth of the women have a gold ring in their nose, some on their fingers, and silver bracelets on their arms and ancles. Perhaps nine-sixteenths of the women, exclusive of widows, have the gold ring in their nose, and ornament their arms chiefly with glass rings, and their ancles with bell-metal; the other six-sixteenths use chiefly bell-metal and tin. Painting the forehead with red lead is not so common as in Behar, and those who use it are more moderate in the extent which they cover. Anointing with oil is still less practised than in Behar; blacking the eyes and tattooing the women are on the same footing.

Cutaneous disorders are rather less common than in Behar. Those who sleep on the bedsteads called Palang, have in general curtains, although in some divisions this luxury is totally unknown. They have always a matras and pillow, and for a covering in winter, have a quilt stuffed with cotton. Those who sleep on the second kind of bedsteads called Charpai, never have curtains, but have bedding and covering similar to those above-mentioned. Of those who sleep on the wretched bedsteads called Khatiyas, some for bedding have a blanket or Satarangji, but many lie on the bare ropes; and, when these are made of the grass called Sabe, it is almost impossible to keep them free of bugs. In cold weather they cover themselves with a blanket, a coarse sheet (Gulaf) or rug. Those who sleep on the ground cover themselves in the same manner, but seldom can afford a blanket. In cold weather they sleep on straw, especially that of the Kodo; in warm, they have coarse mats.

The quantity of animal food used here is much smaller than in Behar. The rich and the higher castes use chiefly goats flesh, for geese are not killed; there are very few pigeons, and no ducks, and the Hindus reject fowls. The low tribes indeed have many swine, and feast on pork twice or thrice a month. The eating of meat, therefore, is not in this country to be considered as a standard for ascertaining the circumstances of the people. Game gives no great sup-

ply, and it falls chiefly to the share of the lower tribes of cultivators; but the higher ranks often regale on partridges and quails, the only birds of which they are fond. Lean goats-meat is sold daily in the market at Arah and Shahusram, and the Hindus, except a few Brahmans, do not scruple to buy meat from the butcher. In small places these tradesmen kill whenever there is a demand; no beef is publicly sold, but I suspect that more is used than is generally avowed; for both here and in Behar there are butchers who live by killing black cattle. In both districts it would seem that the Muhammedans are afraid, and avoid giving publicly their neighbours the highest offence that can be shown to a Hindu. When they eat beef, therefore, they conceal the matter as much as they conveniently can. To the inquiries, therefore, that I made, conducted chiefly by Brahmans, the people of both districts denied the crime of beef eating. The flesh of buffaloes is in little or no request. Fish is still scarcer than in Behar, there being very few large reservoirs. The luxury of the natives in eating, turns chiefly on the use of rice, ghieu, milk, spiceries, sugar, salt and oil.

With regard to oil, the quantity considered as a full daily allowance for five persons, young and old, varied in different places from 11 to $22\frac{1}{2}$ s. w. and in general nearer the latter than the former quantity. The 2nd class is said to use from 5 to 15 s. w., average $8\frac{1}{2}$ s. w.; the 3rd class from $1\frac{1}{2}$ to 10 s. w., average $4\frac{1}{2}$ s. w., and the 4th from $1\frac{1}{4}$ to $6\frac{1}{4}$, average $2\frac{1}{2}$ s. w.; a 5th class in some divisions procures oil only on high occasions; but in most places none scarcely but mendicants are reduced to such necessity. This estimate includes as usual all that is used for the lamp and for unction, as well as for the kitchen. Some of the aboriginal tribes, as Mushahar, Chamar and Dosadli, in a great measure reject the use of oil in diet.

The quantity of salt said to be a full weekly allowance for five persons, young and old, varied from $8\frac{1}{4}$ to $22\frac{1}{2}$ s. w., average $13\frac{1}{2}$ s. w.; the 2nd class is said to procure from 5 to $11\frac{1}{4}$ s. w., average 7 s. w.; the 3rd class from $1\frac{1}{2}$ to $5\frac{1}{2}$, average $3\frac{1}{2}$ s. w., and the 4th class from $1\frac{1}{2}$ s. w. to $2\frac{1}{2}$ s. w., average $1\frac{3}{4}$ s. w.; but a 5th class in some places, although not in all, procure still less. Ashes are not used as a substitute;

but a good deal of the west country salt escapes the vigilance of the custom house.

Sugar or extract of sugar cane is chiefly used in sweetmeats for children, and at all feasts on public occasions. Adults in common, use sugar only to form sherbet, for a cooling drink in the heats of spring. The sherbets here are made of water and sugar, or extract of sugar cane, and of capsicum or black pepper; both of which are considered as cooling.* Rice is used twice a day, by all who can afford it; but near the Ganges the staple food of the lower orders is generally the coarser grains, and in the interior these are used at least once a day. The coarse grains most common in use are barley, pease, and a pulse, Chana (*Cicer arietinum* L.) near the hills, and more commonly on them, a few poor people use as substitutes for grain, Manhuya flowers, and the kernels of the Mango Sakuya and Kend fruits.

In several places I omitted to take an estimate of the quantity of grain considered as a fair allowance for a family of labouring people; but on the bank of the Ganges I procured one, on the accuracy of which I can depend. The family of a poor farmer with one plough, and having six persons young and old, uses daily 288 s. w. of cleaned grain for boiling, and as much meal for pudding, with 72 s. w. of split pease for seasoning, in all 16 lbs. 10 ozs. of farinaceous food each day, for six persons young and old, which is a very large allowance.

The want of a large supply of palm wine is made up by a most extraordinary consumption of tobacco in chewing, and the women indulge in this filthy practice almost as much as the men. It is only a very few women that smoke. The usual daily allowance that a smoker of tobacco consumes is $2\frac{1}{4}$ s. w., or about 495 grains of the prepared drug, one-half of which is leaf. But the custom of chewing prevents smoking from being carried to such excess as is in Bengal. The use of tobacco, either among men or women, seldom commences before they are 20 years old. The spiritous liquor is chiefly made from Manhuya flowers, although a little extract of sugar cane is occasionally distilled.

* All peppers, but the hottest in particular, are refrigeratory to the animal frame. Birds and beasts delight in capsicums.—[Ed.]

The fuel by far in most common use is cow-dung made into cakes, and sometimes mixed with husks of rice, but often by itself. In the well-cleared parts of the district fire-wood is exceedingly dear, and indeed is not often procurable, except by sending cattle and woodcutters to a great distance, and even in the vicinity of some forests it is very scarce, the trees being preserved, partly from religious motives, and partly as they shelter game, for they are of no real value to the owner. The demand for the cow-dung cakes is therefore very great, as in the cold season every one that can procure fuel burns a fire by his bed-side; and the quantity of bushes, rushes, and woody stems of various crops, such as arahar and cotton, that is procurable, gives but a scanty supply.

The free male domestics, as in the districts hitherto surveyed, are usually allowed from 16 to 8 anas a month, with food and raiment; but in Arah their wages often rise to 2 rs. The women servants, called Asil Tahalin, &c., have nearly the former allowances; but it must be observed, that in the two greatest Hindu families in the district, there is no female domestic. The women of their slaves occasionally attend on the ladies; but they are wretched dirty creatures, who pass most of their time in the hardest labours of the field. I know that all the free female domestics in one of the three divisions, where any are kept, are employed in a Muhammedan family, and suspect that the same is the case in the other two divisions. The Hindu ladies, therefore, perform most drudgeries, except the bringing water, or other such labours as would expose them to view.

Slaves are not so numerous as in Behar, but they are less indulged, for they are often sold; and when a master is so poor that he cannot feed them, he usually requires them to give him a share of their wages. In other respects they are on the same footing as in Behar, only the Hindus are more commonly called Kamkar, although most of them are of the Rawani caste; and the remainder Kurmis with a very few Dhanuks at Arah. The Muhammedans, as in Behar, are called Molnazadah. No intermarriages between free persons and slaves are admitted; and when a master has a child by his female slave, it is not removed from the state of slavery the father only endeavours to procure for his child a marriage with another of the same spurious breed. That such con-

nections are numerous, we may safely infer from the price of young women being higher than what is given for men, the latter usually selling for 15 rs., while a girl brings 20. The children in all cases follow the mother. Poor parents seldom sell their children. I could not ascertain the number of slave women belonging to Muhammedans of rank, and kept for pleasure. The invalid soldiers have slaves, as in Bhagalpur; but these may be rather considered as adopted children.

In proportion to the number of inhabitants, the number of common beggars is more considerable than in Behar, amounting to about 3,300; but in other respects their condition is nearly the same, although they are still more annoyed by the charity of individuals being diverted towards the distresses of pilgrims. These are, indeed, often exceedingly great. When one on his return falls sick, and is unable to march, although he has set out in company with his nearest kinsmen and neighbours, he must be deserted to his fate; the means of the party are generally so much exhausted, that the utmost expedition is necessary to enable them to reach their abode. The sick person is, therefore, left without the ceremony of a painful adieu; and, unless he finds a charitable person able to provide for his wants, he perishes on the road. I am assured by the officers of police near the routes which the pilgrims principally follow, that the number which they must bury, in order to prevent the nuisance of putrid bodies, is very considerable. It costs nothing; the persons of the low tribe who remove carcasses being compelled to dig a hole, and to cover the body with earth. No attempt is made to accompany the funeral with the usual religious ceremony, nor to burn it according to the Hindu rite. The poor of the country are not only in general totally neglected, when unable to go out to beg, but in some places it was alleged that whenever one of them becomes sick, and is in danger of dying, the neighbours privately convey him to another manor, and leave him under a tree. If he survives the following day, the people on whom he has been stolen next night convey him to another manor, and the wretch is thus bandied about until he perishes. The reason assigned for this cruel conduct is, that the neighbours are afraid of the expense and trouble which attend the inquiries made by the officers of police, wherever a dead body is found to require funeral. I

believe that this barbarous practice is confined to the vicinity of Dumraong.* Eleven societies of Hijras may be mentioned among the beggars.

The number of women of bad character is very small, amounting only to 130 houses. They are mostly Muhammedans, only in the western parts of the district there are some of the Gandharvinis, or beauties so numerous about the holy city of Benares. They are nearly on the same footing as in Behar, but are not so rich as in the city of Patna. The women are watched with the utmost jealousy, for which however I believe there is very little occasion; nor, except at Shahasram, did I hear of any intriguers, although of course many such must exist; but no women have a fairer character than those of this district.

What I have said concerning the manners of the people in Behar, is applicable to those of this district, only that in Chayanpur the people of most ranks have a good deal of bear-like incivility; for instance, the lower classes will endeavour to make a stranger go a wrong road, or refuse to put him in the way for which he asks; while I found that many of the higher castes, although they were of no personal consequence, declined any communication. Even there, however, the principal families were very attentive, and in every other part of the district all classes were fully as civil as in Behar; if any thing, however, they are still more cautious in their answers, or rather more stupid than the people of that district; and, although equally perhaps industrious, they have not the same skill in agriculture.

EDUCATION OF THE PEOPLE.—The sages (*Gurus*) who instruct children to read and write the Hindi character are on the same footing nearly with those in Behar. The master furnishes the Path, or school-house, and each boy gives 1 ana, and from 5 to 7 sers of grain a month. Each school may be attended by from 5 to 30 boys; but in some places they attend only during the rainy season. The children usually go to school at the age of six, and attend four years. During the two first the boy writes on the ground with a pencil of white clay (*kharī*); during the remainder of the time he writes on a black board with a reed, and white liquor

What a melancholy picture of society these statements afford!—[Ed.]

prepared by rubbing the clay in water. His education is finished by his parents, who teach him to write on paper; and many parents go through the whole steps, there being no other teachers.

The Hindi dialect is now in general use, but it differs very much from the Hindi of Patna; and the dialect of Bhojpur was long celebrated for the uncouthness of its phraseology, and the difficulty with which it was understood. Near the Ganges now the more common form of the language has in a great measure been adopted, especially among persons of rank and education; but in the south even the highest persons, at least in speaking to their servants or tenants, use the old form, which differs not only in many phrases, and in containing many obsolete or barbarous words, but in the inflections of the verbs, and in being interlarded with many expletive and unmeaning particles, such as *Ba* and *Bati*, the former in Bhojpur, and the latter in Chayanpur. The inflections of the verbs are exceedingly different from the common dialect; for instance, in this district the people say *Jala*, in place of *Jaya*; *Aola*, in place of *Aya*; *Karal*, in place of *Kiya*, and so forth: and many of the most common words are totally different; as, for instance, *Rawang*, or *Raorang*, is used in place of *Tom*, you; *Phur*, in place of *Sach*, true; and *Pusar*, in place of *Jhut*, false. These, and many other words, are in all probability derived from the languages of the aboriginal tribes spoken before the introduction of Sangskrita, or its corruption the Hindi; and they may perhaps be remnants of the Chero language, which no doubt was once prevalent. Not only the Cheros however, but the Kharawars, who probably are the original inhabitants, subdued indeed by the Cheros, but still remaining totally unmixed on the table land, speak now the Hindi language. That this however was not the vulgar language, until a very late period, that is to say until immediately previous to the Muhammedan conquest, will perhaps appear probable from the inscriptions at Totala-devi and at Tarachandi, where, as I have before observed, although some part is in Sangskrita, yet many of the names are barbarous, and some parts are not understood, although perfectly legible. Some few words in this part, according to the Pandit of the survey, may be traced to Sangskrita roots; but the greater part has no

affinity to the language now spoken. It is true that the persons to whom these inscriptions refer were probably of the Raythor tribe, which is usually said to inhabit Marowar in the west of India, and it may be supposed that the unintelligible parts of the inscription are in the language of that country; for I know from several Raythor Rajputs, just come from Marowar, that the barbarous names mentioned in the inscription are still in common use in their tribe; but these Marowars speak a dialect of the Hindi language not more different from that of Patna than the dialect of Bhojpur is; nor could the Rajputs from thence understand a word of the inscription. But I shall afterwards have occasion to shew that the Raythors did not occupy Marowar until after the time when this inscription was written; and there is also reason to suspect that the ancestors of the persons mentioned in this had long resided in the vicinity; and therefore I think it probable, although by no means certain, that the unintelligible parts of the inscription are in the dialect commonly spoken by those of highest rank near Rautas in A. D. 1158.

The songs used at marriages are in a more pure style than the poetry of the Bhats. and are not entirely understood by many of the vulgar.

The higher dialect of Hindi especially the Ramayan of Tulasī das is as much read, and as little understood as in Behar, and at Arah two or three Pandits are employed to read this work as in Patna. Besides this the Bhagawat of Lalachulwai (a translation of the 10th book Dasamaskandha) of the Bhagawat puran by Bhupatdas a Kayastha, and the Sudama charitra written by Haladhar das are occasionally read. The books composed by some persons, who pretend to have found out new roads to heaven, are also composed in this dialect. I heard that Ritu Raj Misr of Vagsar studies the Prakrita of Ravana, but the Pandit of the survey had no opportunity of conversing with him until he had become blind with age, nor of procuring an account of that language, so as to ascertain, whether or not it be the same with the Prakrita of Magadha used by the Jain. In the inscriptions of this district, which I have attributed to the Cheros and Raythors the character is pure Deva Nagri, but in those at Masar, the character resembles the Nagri common in Behar, which contains many letters different from those in the modern

Deva Nagri. The study of Persian is just as common among the Hindus as with the Moslems, almost every Kayastha endeavouring to acquire more or less. They seldom however attempt to do more than to be able to keep accompts, and to indite an epistle. The Moslems often study more, in order to fit them for the transactions of the law. The teachers are called *Miang jiu*, and are always in the service of some richman, who gives them from $1\frac{1}{2}$ to 2rs. a month, with food, and a warm cloak for winter, for which they instruct all his children. The children of neighbours, who are allowed to attend, give from 2 to 6 anas. a month each. The Persian character is not used for writing the Hindustani dialect, which, so far as I can learn, is entirely colloquial.

The persons of the Bhojpur family can read and write both Hindi and Persian, but perhaps a half of the owners of land can do neither, and of the other half not above one-fifth part can do more than sign their name, and guess at the meaning of a revenue account. Persons who have reached this degree of knowledge are here called *Mirkats*. A great many people here however fit themselves for the transaction of ordinary business, and many go abroad in quest of employment. As usual in such cases, it is the most adventurous and able youth that go abroad; and those that I found at home, seemed fully as remarkable for chicanery and stupidity, as the scribes of Bhagalpur. The native officers of police, however, appeared to me, with a very few exceptions, very decent well informed persons.

Ten or twelve Hindu ladies have acquired the dangerous art of reading and writing letters, and about 20 in Karangja can sign their name, and understand an accompt, but these acquirements are considered by the grave as improper, and by the childless widowhood of two ladies of Tilothu, who not only write a fair hand, but understand the poetical effusions of Tulasi das, is attributed to the divine wrath irritated by their presumptuous search after the forbidden fruit of knowledge. In general ladies of the highest rank understand only the common form of the vulgar dialect.

In the Appendix will be found the result of my inquiries respecting the state of common education in this district. In this district I heard of three Maulavis who instruct pupils in Arabic science and Persian literature. There is no public

institution for the purpose, nor do the Maulavis give their pupils food. Sher Shah established a Mudruseh or college in Rautas, but it has been long deserted.

The office of Kazi (Judge) is hereditary, and sometimes of course neither ably nor uprightly filled. In flagrant cases of corruption they have been dismissed. The Kazis are attached to pergunahs, and not to the modern divisions of police, which occasions some inconvenience.

With regard to the sciences of the Hindus the Pandit of the survey in the course of his inquiries heard of 25 teachers. The term Adhayapak is not in use, nor are the academicians distinguished from other learned men by any peculiar name, the whole being called Pandit. No one science seems to have a preference to the others, but each man is held in estimation, according to the number of sciences, which he professes, and his supposed skill. Those who teach the grammar of the Sangskrita language, are however called Savdika Pandits, and are not much esteemed, unless they profess something more. Rituraj Misr is admitted by all to be a person of great learning, the Pandit of the survey considers all the others as rather shallow. Few of them have endowments, or maintain their pupils. The Bhojpur Raja feeds those who attend Krishnalal, who is his family priest (Purohit) but he is not equal in reputation to his father Rituraj.

I shall now mention, what I can learn from the Pandit of the survey, concerning such of the books as are here taught, of which no account has been formerly procured.

Among the grammars the Chandrika, which in Behar was said to be the same with the Saraswat mentioned in my account of Dinajpur, is here said to be a different work, and to have been composed by a Ram Sarma Acharya, and to be as easy as the Saraswat. The Amara kosha is the only vocabulary (*Abhidhan*) in use. The poems composed by mere men (*Kabya*), on whatever subject they treat, are here considered as a separate science, and are not held as an appendage to law, as in Bhagalpur, or to grammar as in Behar.

The explanation of the works of Vyas also is considered here as a separate study; but the Vedas are totally neglected, and the Sri Bhagawat Puran, and the portion of the Mahabharath called Bhagawat Gita, are the only works explained, and that according to the school of Sridhar.

In law, the great authority is the *Mitakshara*, or commentary on the law of *Yagnabalkya*, mentioned in my account of Behar. The only other book on this subject which has not hitherto been explained, and that is used here, is the *Kala Nirnaya*, composed by *Kamala Bhatta* a *Maharashtra Brahman*.

Metaphysics are only taught by two persons, but one of these is exceedingly learned, and is said to possess a great number of authors on the subject. The *Tantras* are only taught by one person, and what may seem strange is, that though the teacher is of the sect of *Vishnu*, two at least of the books which he uses, belong to the sect of *Sakti*, and enjoin bloody sacrifices. The nature of the other book I have not learned.

There are only two professors of astrology, and these have not high reputation. The *Krita Lilawati*, one of the books which is taught, was composed by a certain *Satananda*. Of the others, the *Pandit* of the survey can give no account.

The two *Brahmans* who teach medicine, are actual practitioners. The *Baidya Jiwan* was composed by *Lolamba Raja*, but who this person was is unknown. The *Yunani* physicians, or followers of the Greeks among the *Muhammedans*, have no public teacher; they are educated as private pupils.

Besides the professors who teach Hindu science, about 400 persons are dignified with the title of *Pandit*, and all of them understand a little of *Sanskrita* grammar, of law, and of the profitable science called *Jyotish*; but none can be considered as at all learned.

None, except *Brahmans*, can legally study the word of the gods, or of the holy persons called *Munis*; nor has any one ventured to infringe this law, except *Babu Gopal, Saran of Vagsar*, a *Rajput* of the *Bhojpur* family. Two or three *Kayasthas* have indeed studied the *Sanskrita* grammar, written by mere men, but not with a view of obtaining the forbidden fruit of knowledge. Their object seems to have been to acquire what would enable them to understand the wanton pedantry of *Tulasi das*.

Scarcely any interlopers pretend here to interfere with the rights of the sacred order, in explaining the decrees of fate by the science of *Jyotish*. Besides all the *Pandits*, the *Purohit*

Brahmans, exactly similar to those so called in Behar, share in the profits of this art; and many of them called Dihuyars have an hereditary right to all the lower classes of their respective manors, just like the Panchanggas of the south of India. In this district none of the colony from Kraungchadwip, nor of the Jyosis have procured a footing; but their place is supplied by some ignorant Brahmans, not unaptly called Dakatiyas, or robbers.

In the southern parts of the district 120 or 130 women of low tribes, in the month Strawan give themselves out as possessed by Maha Maya. They come from their houses under a violent agitation, seat themselves under a tree, and speak nonsense, while their husbands beat a drum. The lower castes flock round with little offerings of grain, and endeavour to discover future events in the nonsense which the creatures utter. Some of these women are young, some old; but, after having been once affected, they usually continue to be so every year. In the intervals they are as rational as usual.

The era Samvat and lunar year are in use here, as well as in Behar. The 1st day of the month with the Hindus commences on the full moon; with the Muhammedans, when the new moon is first seen.

Besides the professors of medicine, I heard of 103 Brahmans who practise that art: two or three of them are of Kanoj, all the others are of Sakadwip. There are five Muhammedan practitioners who pretend to be followers of Galen and Hippocrates. None of the low tribes venture to interfere. The Hindu physicians are not servants, they subsist by the fees of those who employ them, and may make from 10 to 20 rs. a month. The followers of the Greeks make rather more. None pretend to practise medicine as a profession, without having studied books on the science; but many people have nostrums which they give to the sick without any fee or reward, except reputation. Few men of rank are without some recipe of this sort. There are about 40 gurahs or surgeon-barbers who treat sores, and some of them with considerable skill. These also cup and bleed; but this is done also by many barbers, who do not venture to apply drugs to ulcers. The midwives are as usual of the lowest tribes, and besides cutting the umbilical chord, treat

pains and tumours of the abdomen, even in males, by friction and dry cupping.

From 1900 to 2000 men and 100 women pretend to be possessed of the art of incantation; about 400 of the men are employed to cure the bite of serpents, and the remainder in curing the diseases attributed to the operations of witches and devils. Perhaps 300 or 400 of the men are called Bha-kats or worshippers, and, as in Behar, take the devil to themselves, when they expel him from their patient.

Only 30 inoculators for the small pox reside, but these being unable to operate on even the small proportion of the people which have adopted this salutary measure, several operators come from the north side of the Ganges. Of late the practice seems to have been fast gaining ground.

RELIGION AND SECTS.—Had I, as in former districts, taken the number of Moslems and Hindus from a general estimate of the proportion between the two classes of men, given by the people of each division, I should have made the number of the former much greater than, I think, can be admitted; although the proportion stated was by no means so high, as in any of the districts hitherto surveyed. I soon found that in this district very few Muhammedans, who pretended to a decent purity of birth, would touch the plough, and that this labour, of which the Roman nobility was proud, is admitted by few only of even the low converts from the impure tribes of Pagans that follow degrading trades. I prefer therefore a list made out in each division of the different tribes of the faithful, although I am inclined to consider that the numbers are somewhat underrated; but I have had no means of forming a conjecture concerning the proportion, and therefore give the numbers such as they were procured. The reader will however do well to keep in mind, that the numbers of the Muhammedan artificers especially, are probably somewhat more than I have stated, and that the surplus is employed in agriculture, and that of course the number of the agricultural tribes of Hindus ought to be somewhat reduced.

MUHAMMEDANS.—Most of the observations made under this head in Behar, are applicable also to Shahabad. Dr. Buchanan heard of only 60 families of Shiyas, of whom two-thirds are in the divisions of Shahusram and Sangyot. Such a small number of course can give no disturbance in

the Muhurum. Among the Moslems here the doctrine of caste is fully more confirmed than in Patna, and no one person will eat with infidels, most tribes are excluded from mutual intermarriage, and many are condemned to perpetual exclusion from rank and respectability.

The Saiuds, who claim a descent from the daughter of the prophet, amount to about 330.* The Moguls do not exceed 30. The Pathans are estimated at about 2170, a considerable number of these are avowedly converted Rajputs, who on account of their congenial disposition were admitted into the fraternity of this sanguinary and deceitful people. These still retain a good deal of landed property.

All the Sheykhs here consider themselves noble, and of Arabian extraction, 700 families are called Sheykh without addition, and 50 pretend to be of the tribe of Korish.

A hundred families pretend to be descended from the warlike companions of the saint Mulek Bayo, who according to a legend of the most dubious authority was the person, that first subjected the infidels to the authority of the faith.

The Fakirs, amount to 240, and do not intermarry with the profane. Poets (*Bhats*), who have mostly small endowments, amount to 120. Men-licant Musicians 105. Retailers of fish and vegetables 285. Innkeepers. 200. Sellers of betle 3. Retailers of provision 400. This, is a very low profession among the Hindus.

These are the traders. With respect to the artists. Musicians, who perform at marriages, 5. At births, 63. In this place may be reckoned the 11 Societies of Eunuchs, that attend houses at births. Low women 125. Ballad singers 10. Falconers 5. Bow and arrow makers 7. Powder makers 22. Soap makers 7. Cotton cleaners 720. Dyers 140. Washermen 32. The Jola or weavers were estimated at 7253, but I think it probable, that there are a good many more, as it is this tribe chiefly, that has betaken itself to agriculture. Tape weavers were estimated at only 22, confined to Arah; those in the country being still Pagans. ^ACarpet weavers 30. Taylors 350. Saddle and saddle-cloth makers 27, I believe that the two professions do not intermarry. Makers of glass ornaments 249. Barbers 220. Oil makers 30. Bakers 3. Mutton butchers 57 Beef butchers 39. Gardeners 9. Paper makers 130. Farriers 21. Cutlers 10. Sweepers and scavengers 34. Slaves 510. These are mostly employed in agriculture.

HINDUS.—I have nothing new to offer concerning the origin of the castes, more especially of the Brahmans, and shall therefore proceed to an enumeration, according nearly to the respective rank, which each is usually allowed by their neighbours to hold, although this is often very different from their own pretensions. In the list procured by the Pandit of the survey he appears to me naturally enough to have exaggerated the number of the high castes, and to have overlooked the numbers of the low tribes; because the former are known to every one, and the latter live in obscu-

* All the subsequent Nos. in this section refer to families.—*Ed.*

city. The numbers therefore, which he procured, I have corrected by estimates, made by my chief assistant, of the four different classes of people divided into the most usual prevailing sub-divisions, such as Brahman, Rajput and Kayastha for the gentry, and Kurini, Ahir, Kairi, &c. for the cultivators, while for the artificers and traders I have followed the lists of each profession procured by the same person.

The Brahmans on such grounds I estimate to amount to very near 34,000, of which about one half may be said to belong to the sacred order; as, if employed, they could receive gifts, and perform religious ceremonies for the absolution of sin. The other half belong to the military tribe, which I consider as descended of the ancient Brachmani.

It is only however a small part of the sacred order, that is able to procure a subsistence by their proper duty, 97 or 96 per cent. at least hire land, and 70 per cent. at least do every kind of labour on these farms, except holding the plough, a good many have entered into the regular military service, and a few have become merchants. Not above 25 per cent. can even sign their name.

Beginning with the northern division of the 10 tribes, into which the sacred order is now usually divided, that of Kanoj contains almost the whole, amounting to about 16,000. The Kanojiyas of this district have very little learning, only four of the 25 teachers of science belonging to the tribe, which does not contain above one half of the common Pandits; but it possesses the greater part of the Dihwar Brahmans, who, as Vossius said, *sacrificuli sunt in pagis et decipiunt vulgos*. In general the Brahmans of Kanoj are mere peasants, and many of them are inclined to arms, so that they differ very little in their manners from the military Brahmans, or from Rajputs, except that they are more sly, and not quite so violent. They do not scruple to ride in carriages drawn by oxen, a custom which gives the utmost offence to the Bengalese; while on the contrary many of the Kanojiyas here take offence at the Bengalese eating fish, and rice that has been cleared of the husk by boiling. A large proportion of them do not know the name of the God to whom their secret prayer is addressed, nor was I able to ascertain, to which sect the greater part belongs. The Pandit of the survey thinks, that Vishnu is the favourite, while my chief assistant thinks that the Goddess has the preference. By far the greater part of them call themselves merely Kanojiya Brahmans, but some call themselves Antarvedi, some Saryuriya and some Sanauriya. These divisions seem to have taken place in the very last periods of Hindu government, when Kanoj came to be the capital of a kingdom, and are derived from the provinces into which that kingdom was divided. Those who are called merely Kanojiyas in all probability had settled here, before this division took place. The number of these called Antarvedis and Sanauriya is quite trifling; the Saryuriyas from the banks of the Saryu are not a seventh part of the whole. 34 families are distinguished from the others by the name Katthak, and obtain a subsistence by singing amorous ditties accompanied by musical instruments. In this district they do not dance, as is done at Benares.

None of the colonies of Kanyakubja, that have settled in Bengal, have

returned to this quarter, and there are only one family of each of the three tribes of Saraswat, Gaur and Maithila; none of Utkal, nor from the five southern tribes, so far as I heard, have settled in this district.

Next to the Kanojiyas the most numerous class of the sacred order is of the original colony from Sakadwip, of which there may be about 850. These adhere to their duty more strictly than the Kanojiyas, as 21 out of the 25 teachers of science, and one half of all the Pandits belong to this tribe. A few of them also are Dihuwars, and some practice medicine, so that a large portion lives more or less by some sort of science, and most of them can read and write. many of them rent lands, but few or none toil with their own hands; a few however enter into service. Their manners seem to be the same as in Behar.

Among the Brahmans, who belong to the 10 tribes of the sacred order, but whose tribe is not known, owing to the lowness of the offices, which they perform, are about 260 families of Kantabas, concerning whom I have nothing new to offer. The name Kantaha, being considered disgraceful, they are enraged when it is used; and people in speaking to them usually call them Mahapatra or Mahabrahman.

There are also about 100 Yajurhotas, and an equal number of Dakatiyas or Bhareriya, who are admitted by all to belong to the sacred order, but who would not appear to belong either to the colony from Sakadwip, nor to that of Kanoj. I have nothing new to offer concerning these priests, except that the former in the vulgar language of this district are called Vaidika Yujutiyas, and their name, I am now told, may merely imply their having the knowledge (*Veda*) of offering (*Yajur*) the sacrifice of fire (*Hota*), and may not have any direct reference to the books called the four Vedas, or four sciences. Nor is this sacrifice necessarily accompanied by any ceremonies contained in these books, although its performance is considered as one of the great external signs, by which the followers of these books are distinguished from the heterodox; but forms for conducting the same ceremony are also contained in the Tantras. The Dakatiyas, besides cheating the canaille by a pretended knowledge of futurity, and besides keeping the implements used for marking time, have betaken themselves to selling holy water, which they carry from Prayag to Baidyanath and sell at 8 rs. a load. They beg by the way. The military Brahmans in this district, although they have not acquired much share of the landed property, amount to about 16,600.

Of the ancient tribe of Khattris there are here only 14 or 15 families, mostly merchants. There are none of the Ramjani low women in this district; but four houses of Gandharbins hold a still higher rank, and admit none to their embraces but Hindus of pure birth and consequence. No one disputes the purity of their birth, nor scruples to drink water from their hand, although they supply their number by handsome girls of any kind, that they can procure. In Benares they are numerous. The Bhatta, Bhats, or Bards amount to above 600, and have nearly the same manners as mentioned in Behar; but few of them are endowed, and they live mostly by farming, the poor having taken to the plough.

The Beni yas amount to 3460. The Kayastha may amount to 7000, of whom by far the greatest number belongs to the Sribastav tribe

The greater part of the Kayasthas can read and write Hindi, and keep accompts, and 10 or 12 of them have studied a little grammar. Perhaps one fifth part understand Persian accompts, but the number, who can indite, or explain a letter in that language, is very small. Although they keep the whole accompts of the land rent, and although a good many go abroad for employment, yet by far the greater part subsists by the cultivation of the land. When very poor, they plough with their own hand; but few only are reduced to this necessity. A few are artificers and make red-lead.

The masons and stonecutters amount to 70. The Sanar amount to about 1000, but many of them work in the base metals, and about 100 families are money-changers. Halwais or confectioners 2560, but about 2000 of these have become ploughmen, and of these a few also trade in grain. Betle sellers 40. The Malis (Gardeners) who remain Pagans, for a few have embraced the faith in Muhammed, amount to about 210. The Kandus, although reckoned among artificers, in strict propriety should be considered as labourers of the soil; for it is the women alone, that parch grain, and the men cultivate the land, but chiefly as day labourers. They amount to 2300.

The agricultural Sudras of pure birth are considered to be as follows. The industrious tribe of Kairis amount to about 30,000 families, of which 11-12ths are said to be Kanjiyas. The Kurmis about 17,000. The Dhanuks in this district are not slaves, but their number is trifling being only about 320.

Of the next rank of Sudras, who carry loads on their shoulders, we have the following. The Rawani Kabars, amount here to about 6500, chiefly employed in agriculture, but perhaps 600 of these are entirely domestic servants. A large proportion are slaves, but many have now become entirely free. They live pure, except in the point of spirituous liquor, to which they are very much abandoned.

The Torhas amount to about 700. They cultivate the ground, carry the palanquin, and occasionally fish. Although admitted to be pure, they eat pork, which abomination the Rawanis reject. The Dasanamis are their instructors, and the Dihumar Brahmans perform their ceremonies.

In this district great confusion prevails concerning the Kharwars or Kharowars, because in different places they have in very different degrees adopted the rules of Hindu purity, and have therefore been placed in very different situations of life; some of them are mere labourers, intermixed with various other tribes, and live by agriculture and carrying the palanquin; others have very considerable estates, and rule many Brahmans and Rajputs; while some occupy the table land almost totally unmixed with any other tribe, and there is little reason to doubt, but that they are its original inhabitants. These have retained the features, by which the aboriginal tribes of the Vindhyan mountains are distinguished, just as entirely as the inhabitants of the Rajmahal hills, although, so far as I can learn, the whole Kharwars, both of this district and of Ramgar, speak an

old or corrupted dialect of the Hindi language. Some of the principal men among the highlanders of this district have been induced to live a pure life; but by far the greater part eats buffaloes, pork, and fowls, and I am assured by Banakhandi Singha, a very intelligent person in Sangyot who has more influence over them than any person in the low country, and who is thoroughly acquainted with their manners, that once in three years a great sacrifice is made, at which an animal of the ox kind, a hog, and a fowl are offered. These highlanders call themselves Suryabangsis or descendants of the sun; and as their hills would at one time appear to have been the residence of Rohitaswa, a prince descended of Surya, their claim has some shadow of support; but notwithstanding it appears to me exactly on a footing with that of the Bhungihars of Bhagalpur; for I think it probable, that Rohitaswa and other persons of the family of the sun were of foreign extraction. It would however appear, that a great part of the country immediately south and west from their hills, has for ages been the property of persons belonging to this tribe, although it has not there had the exclusive occupancy of the soil. The unmixed Kharrowars, who occupy the table land amount to 770 houses, and those, who occupy the plains intermixed with other labourers, to about 2230 houses.

The tribe of palanquin bearers, including Parihar Rajputs, Rajbangsi Bhars, and Rajbhars, amounts to about 500 families. Descending a little lower in the scale of pure Sudras we have four tribes.

The Gop of the sacred language are in this district called Ahirs; but do not differ in their manners from the Goyalas of Behar, only, as they are suspected of being thieves, a good many as usual are employed for watchmen. In all there may be 19,200, of whom 2600 adhere to the duties of their profession, tending cattle and preparing and selling milk and cowdung.

The Gangreris or blanket weavers and shepherds, amount to about 530 houses, and very seldom cultivate the ground. The torch makers and carriers, 430.

Of the Khattiks only one family remains Pagan, for I have no doubt, that the Kungjras, now all Muhammedans, originally belonged to this tribe. To the first class of impure Sudras belong five tribes. The potters 1200.

The Lohars 2400. They are all of Kanoj, except 100 called Laori. This term is a vulgar name for a female slave, nor can the Pandit give any other explanation. I suspect rather, that it is a careless orthography for Lahor, a well known country, from which these families may have come. The Lohars adhere to their profession of blacksmiths, but many of them encroach a little on the business of the carpenters, by making the wooden parts of the implements of husbandry. The carpenters 900 houses. The Laheris, who work in lack, 30.

In this district, the fishermen called Malo, live but a small part of the year by this profession, or by the management of boats; and are almost all cultivators, who in the seasons catch fish or keep ferries. As in Behar some are considered as in the dregs of impurity, while others are altogether vile. The former reject pork, the latter eat it, but why this should

create a difference, I cannot say, as several tribes here allowed to be pure grant themselves this indulgence. Of those merely impure there are two tribes. The Suriyas amount to 70. The Mariyaris to 240.

The lowest class of fishermen consists of eight tribes of the same rank, with twelve tribes of day labourers and artists, as follows, beginning with the fishermen. Of the Tiwars there are only 5. Of the Chaing there are 220 families.

The Bindu are divided into two kinds; of which one, amounting to 360, contains fishermen; the other, containing about 100, is composed of Beldars or workers with the hoe; both are in fact farmers, and, I understand in this district are considered as the same tribe.

The hoe men (Beldars) include besides about 350, of which three-fourths could make saltpetre, but all have not employment, and all act as cultivators. The remainder called Khatawas are ditchers, but they also live chiefly by agriculture. The tape makers, who continue Pagans, are of two distinct tribes, 60 are called Goriyas, and have no communion with the others.

The second class of Pagan tapemakers are Yogis, and during the government of the Siviras, were probably the priesthood of the country; but I have not yet been able to procure any proper account of this curious people. Some of the Yogis are also weavers, the whole in this district amounting to about 130. Oilmen, 3000 houses; 200 live by trade.

Sungris, 6200, of whom 2200 live entirely by agriculture, and 4000 by trade, to which a few annex the distillery of spirituous liquors. The Pasis, who extract palm wine, 200.

In most places, that I have hitherto visited, the falconers (Sikari) have become Muhammedans, but in this district about 90 remain Pagans. The Cheros, once lords of the Gangetic provinces, and whose sovereign was probably king paramount of India, are in this district thrust into the lowest dregs of impurity, with the falconers, and in fact the 70, that are now supposed to remain, conceal themselves chiefly among the woods at the bottom of the precipices that surround the table land of the Kharwars, or in the woods of Jagadisur. They live chiefly by agriculture, by cutting timber and bamboos, by collecting drugs, and by killing game; yet they still continue to create a Raja for each small fraternity of five or six houses, and place on his forehead the usual mark (*Tika*). Their features are strongly marked, as belonging to the aboriginal tribes of the Vindhya mountains, but in this district they speak only the Hindi dialect, and this also is, I am told, the case with many of those in the Ramgar district, where they are said to be still numerous. I have however been assured, both by some of them who have gone so far as the lesser Nagpur, and by some persons of different tribes who had come from thence, that in these wilds the Cheros speak a language, that is intelligible to themselves alone. All of them, that I have seen, say, that they live exactly in the same pure manner as Rajputs; and that those of Palama, who are rich, wear the thread, although the poor do not. But the Brahmans allege, that the Cheros live as impure as the highland Kharwars, still remembering the time, when the princes of this people supported the heretical Buddhas.

To proceed to the vile castes, whose manners resemble those mentioned in Behar, I begin with four tribes called Kirats, the ancient subjects of the abominable Cheros. The Musahar amount to 1030 houses. The Rajawars mentioned in the account of Behar, 100. Twenty-five families of the Dhanggars have settled on Rautas. The Dosads are very numerous. They are almost entirely occupied in agriculture, and are not considered as thieves, 8900. About 80 per cent. may be of Maghadha, 9 per cent. Kochaniyas, 4 per cent. Kurins, 3 per cent. Gorar, 2 per cent. Dhar, 1 per cent. Palawar, and an equal number Bhorar.

I now proceed to the artists reckoned abominable. The washermen (Dhobi) amount to 1200. The Chamars, or workers in hides, are in this district very numerous, but the greater part of them have betaken themselves to agriculture, as has also happened in some parts of the coast of Malabar, where indeed the greater part of the cultivation is carried on by this tribe named there Charinar, with less deviation from the Sangskrita than is used in the north. In that country, as wherever the Tamul language prevails, most of the agricultural tribes are of the lowest dregs of abomination, and are slaves, but that is by no means the case on the banks of the Ganges. The Chamars amount to about 8200.

The ordinary workers in bamboo and rattan in this country are divided into two classes. The former do not remove dead bodies, nor act as public executioners, and may amount to 30 families; the latter perform both disagreeable offices, and amount to 260 houses.

The Hualkhors, or sweepers and scavengers, who close the list of abomination, and who have not embraced the faith of Muhammed, although it is uncertain, whether they have any other, amount to about 250 houses.

It must appear evident from the enumeration of the tribes, that those of Kanojiya have fully as much possession of the country as the Magadhas have of Behar; which confirms the opinion of those who maintain that this country was never a portion of Magadha, although no doubt it was at one time subject to the princes of that country. Notwithstanding this extraction from Kanoj, and the great proportion of Rajputs in the population of Shahabad, it must be observed that the west country fashion of the women's wearing petticoats has made much less progress here than in Behar, owing, I presume, to a greater degree of poverty. Although this district was also nearer the royal residence than Behar, the Persian language has made much less progress, and the number of Moslems is much smaller than towards the east.

It must also be observed that the use of pork is not considered as so degrading as further east, several tribes of Sudras admitted to be pure making no scruple of eating this food, while in Behar it is done by the Goyalas alone, and that only on a particular occasion. There are, however, in this district

a greater proportion of those who reject altogether animal food, owing to a greater prevalence of the sect of Vishnu, and of those who, being in search of heaven by new routes (*Panth*), as usual assume more than ordinary austerity. No Hindu women, except of the very lowest dregs of abomination, and even very few of these, smoke tobacco; and the men are not so much addicted to spirituous liquor; more, however, probably from want of means than from inclination.

Marriages are apparently much on the same footing as in Behar; and the most important difference is, that in this district the girl, after marriage, always resides with her husband, and among the Paramark Rajputs, so soon after 10 years of age as the astrologer can discover a propitious time, the marriage is consummated.

In this tribe wives are not permitted to see father, mother, sister nor eldest brother; but they may see their younger brothers. The wives of other tribes are permitted to see their kindred; but these are never allowed to eat in the husband's house, nor are the wives permitted even to drink water out of her kindred's hands. The reason assigned for so barbarous a custom is, that the wife, giving up all connection with her own kindred, may become entirely devoted to the interest of her husband. The expense of the ceremony, as I have said, and the difficulty of procuring suitable matches often induces the high tribes to defer the marriages of their daughters until they approach the age of puberty, and even sometimes still later, although every possible exertion is made to avoid the latter circumstance; as it is in general supposed to be unfavourable to morality. The low tribes marry when mere children of five or six years, and young women are preserved from wantonness by being taken into the family as concubines (*sagai*).

The custom of widows burning themselves alive is here very common, especially in Biloti; and in almost every manor are three or four places marked by a truncated cone of clay, where the horrid sacrifice has been performed. At these places *Sat chauras*, or *Siras*, women of all ranks continue to make little offerings, and the relations of the victims keep the monument in repair. It would be considered as far beyond the dignity of a man to pay them any respect. The ceremony is not confined to any rank, although among the higher castes

it is most common. I heard, however, of a Musahar woman who had thus sacrificed herself. It is not always that a priest of any kind attends to read or perform mummeries; and eagerness for the sacrifice overlooks many irregularities. This year, for instance, a military Brahman died in the division of Ekwari, and his widow burned according to the regular forms; but his son dying soon after, the widow allowed the corps to be burned, and even the ceremony called Sradhh to be performed on the eleventh day afterwards. Next day, however, she caused a pit to be filled with fire, and threw herself into it according to the ceremony called Anumrita. This was quite irregular; first, because she was a Brahman, and Sudras alone are permitted this indulgence; and secondly, because it ought only to be done when the husband died at a distance. Notwithstanding these irregularities, the Brahmans made no objection to perform the ceremonies; but she would perhaps have burnt herself, had they even declined to attend. She had probably in the interval experienced some of those affronts to which Hindu widows are so liable; and the women of rank here are said to have the most haughty and violent tempers. The annual number of victims may be about 25. The contagion of example has even extended to the Muhammedans, and I heard of the widow of a weaver, who had buried herself alive in her husband's grave.*

Here, as well as in Behar, many of even the high castes do not trouble themselves with taking instruction from the sages; at least, until they are above 40 years of age; but in this district the number of such negligent persons is not so considerable in proportion to the number of inhabitants, the Rajputs being more regular than the military Brahmans; still, however, a fourth of the whole adults may have adopted the usage. Of the four sects now reckoned orthodox, the following may be the proportions:—Saivas, 267; Saktas, 368; Nanaks, 208; Vaishnavas, 156.

* The efforts which I made in India (and which, before I left Calcutta, were successful,) for the abolition of this horrid rite, by the publication of a Journal in four languages, addressed to all classes of the natives, is one of the most gratifying events of my life. It is justly due to the memory of the late Rammohun Roy to state that to his aid, in conjunction with that of the noble-minded Dwarkanaut Tagora and his able and estimable cousin, Prussunu Comar Tagore, I was materially indebted for the success of my labours in 1829.—[ED.]

The term Grama devata, or gods of the manor or village, is here scarcely known, but the term Dihuyar, perfectly analogous, is in general use, although Gango Yak, or treasurer of the manor, is a term also employed. In almost every true (*Asuli*) manor, that is to say small division of territory, that has been long established in the revenue accompts, is a (*sthan*) place dedicated to the worship of the deity, who is supposed to have the chief influence there, and this influence is thought to be generally exerted in causing evil.

Besides the daily prayers offered to the favourite god, and the sacrifices and offerings made to fear and the appetite for flesh, bathing in certain holy places, and pilgrimage as in Behar are here the most common forms of Hindu worship. In the topography have been mentioned the various places in the district, that are frequented, and the number that usually attends. The pilgrimage out of the district, to which most people resort is Dadri, in the province of Benares, and no less than 84,000 people are said to attend from this district; but these go almost entirely from the vicinity, while none attend from the more remote parts of the district. About 20,000 are supposed to go annually to the great fair at Harihar Chhatra opposite to Patna, and celebrated at the same time with that of Dadri, almost all these again go from the corner of the district nearest the place. Whenever an eclipse happens, about 1,700 people go to Benares. This year, on the occasion of a solar eclipse, it was supposed, that more than double that number attended.

On the 6th day of the moon in Karttick, many women here fast all day, in the evening they go in procession with music, and sitting down by some pond or river, at sunset make offerings to the great luminary. They continue sitting there all night, and do not eat until sunrise, having fasted 24 hours. This holy day is called Chhatka Bharat, and is observed also in Behar. In Bengal it is not known.

The Charakpuja* is not known in this district. None of the Sudras are permitted to read any book composed by the gods or Munis; and none of the Vaisiyas nor Kshatris give themselves the trouble; nor indeed do the sacred order bestow

* Swinging in the air suspended by hooks passed through the fleshy part of the loins.—[Ed.]

much study on these works. At some of the principal towns, however, a few Brahmans expound parts of the Purans, as in Behar. Oaths are on the same footing as in Behar. Owing probably to the want of proper means for determining petty suits, several images are resorted to for the purpose, and the priest administers to the defendant an oath denying the validity of the claim. If he takes the oath, the claimant is dismissed as unreasonable.

In this district a new route to heaven has lately been discovered by a Muhammedan tailor, who rejected the prophet, admitted the Hindus into his society, and took the name of Dariya Das; but he is often called the Panth, or the path, and offerings are often made at his grave, but only in the name of the deity; for the tailor had sufficient modesty to abstain from claims to a divine nature. Except this grave however, the sect has nothing, that can be called a temple; but the house where he dwelt at Dharkandha in the division of Karangja, is called his throne (*tukht*), and is occupied by Tekadas, who succeeded Gunadas, the favourite pupil of the tailor. Tekadas is called a Mahanta, and two other persons enjoy the same title; but the places of their residence are called merely their abodes (*mokam*). One is at Dungsi in Betiya, the other at Telpa near Chhapra, both in the district of Sarum. Annexed to the three Mahantas are about 70 persons considered as of the sacred order, and called Das (servants) and Chela (pupils); and these are employed to wander about making converts, and levying contributions. At Dharkandha they have 101 bigahs of land free of rent, conferred on the apostate by Kasem Aly. Hindus of all ranks and Moslems may be admitted into the priesthood, and after this they all eat in common; and they will eat from the hand of any layman, who has adopted their doctrine; but they reject the food of all heretics. Of the three priests, from whom this account was taken, one had been a Rajput, another a Kaiastha, and the third a Kurmi. All the priests reject women, abandon their kindred, and shave their heads. They indulge however in smoking tobacco, and a peculiar kind of implement (*ratna-nalita*) used for that purpose, and a pot for holding water, are indeed considered as the badges of their order. They totally reject spirituous liquors, and animal food, considering all animals as portions of the Su-

preme Deity, whom they call Satya Sukrit. They do not deny the existence of the Devatas; but say, that they are all created by the Supreme Being, who is the only legal object of worship. They have no images, but make offerings of fruit, sugar, milk and the like, placing them on the ground, and calling on the name of God. They reject bloody sacrifices, and the offerings by fire (*hom*), that are considered by the Hindus as one of the most essential marks of orthodoxy; nor do they give their followers any secret form of prayer. The dead bodies of the priests are buried. The priests can in general read and write the Hindi language; but know little or nothing of Sangskrita science, which they despise; and they entirely reject the authority of the Vedas and Purans. They reject also the Koran; and allege, that all useful knowledge is contained in the 18 books composed by Dariyadas. The priests however as usual allege, although these works are composed in the Hindi language, that their meaning is rather obscure, and that few arrive at a knowledge of the whole. They made no scruple of showing the books to me, to the Pandit, and to my native assistants, although we were avowed infidels, nor are the laity of their own sect excluded from the perusal; but the priests did not consider it decorous to sell any of the books, and said, that I might be supplied by any of the laity, from whom such reverence is not expected. The Pandit however failed in attempting to procure any of these works.

Those with whom I conversed, seemed to think, that in all, the three houses may have about 20,000 lay followers. These receive no secret form of prayer, but are taught to worship Satya Sukrit alone, and to abstain from animal food, and spirituous liquors. They are promised, that by this means they may obtain an union with god; and threatened, if they are neglectful, with being born again as persons full of trouble, or even as base animals; but a hell, or place appropriated for the punishment of the wicked, is not believed. Although they declaim violently against the killing of all the lower animals, they are neither so mad, nor such knaves as to cry out against the unavoidable evil of war, or the profession of a soldier; nor, although they condemn the practice, do they think it convenient to hinder the widows of their followers from burning themselves alive; in this country that would be

bringing on their sect an indelible disgrace. Their lay converts, whether Hindus or Moslems, are allowed to follow the original customs of their tribe in funerals and marriages, so that the latter bury their dead, and are married by the Kazi, while the Hindus burn their dead, and both then, at marriages, and at other usual solemnities continue to employ their Purohit to perform the ceremonies.*

The exercises imposed on young Brahmans, before they take the thread, are not more severe than in Behar; and during the day wasted in this manner, they are called Brahmaiharis. In travelling through the district I met with a Sakadwipi, who had taken this title, and was proceeding in search of celebrity with more severity. He contrived to support himself on his head, neck and shoulders, so as to keep his body and legs in the air, and in this awkward posture he meditated on divine things during the whole day. He said, that, when he had completed his exercises in this valuable way, he intended to pass a cold season in the Ganges, with his head only above water. He followed my party for some days; but finding that he was laughed at by the Moslems, and that even the Hindus began to suspect his hypocrisy, and to ask why he performed his penances so much in public, he left us, in search of a more manageable flock.

A gymnosophist (*Paramahansa*) has seated himself at Dumraong, and observes strict silence. He eats whatever is put into his mouth by any person; but none of the *cânaill*e are permitted to approach; not that he interferes in the least, but persons of rank would not tolerate the abomination. In cold weather they cover him with a blanket, under which, as in all other circumstances, he remains perfectly passive, passing his whole time in meditation on divine things.

* The description of this sect or *Panth*, has been given at length as an illustration of many others existing throughout the country. Indeed, of late years, sectarianism has spread widely in India, particularly among the once orthodox Hindoos, not a few of whom are passing from the grossest idolatry into the abstract nonentities of deism. If no injudicious efforts be made the idols of Paganism will gradually be broken, and the ground prepared for the pure seeds of Christian principles.—[ED.]

CHAPTER IV.

ANIMALS, VEGETABLES, MINERALS, ETC. OF SHAHABAD.

TIGERS, bears and monkeys are as numerous as in Behar. The Kohiya or wild dog is evidently very distinct from every species described by Linnæus, Buffon, Gmelin, Pennant or Shawe. In its manners it more resembles the dog than any other species of the canine tribe; but in its external appearance, both shape and colour, it comes nearer the European fox: it is however larger, and the end of the tail is bent down like that of the wolf: it may be distinguished from other kindred animals by having a compressed tail, in which respect it resembles the hunting leopard; and this circumstance, no doubt, gives both animals a power of turning with great rapidity when in full pursuit of their prey.

The jackall is very subject to hydrophobia, and in this state often attacks men, to whom it communicates the disease. Hares are exceedingly numerous. Neither wild elephants nor rhinoceroses are known. The Sombar or Sawar, is the large brown deer, like the stag, which has been mentioned in the account of Ronggpur. The Bhojpur Raja had one of the males tame, and assured me that it never acquires more than two branches to each horn, one near the brow, the other near the extremity. This not only agrees entirely with what I have seen, but, as the Raja is a very keen hunter, confirms my opinion of this animal being a distinct species from the red deer, which on account of the greater number of branches on its horns, is in some places called Baro Singga, or the twelve-horned deer. The Sambar chiefly frequents the hilly parts of this district, especially the narrow and winding recesses in the sides of the table-land. The red deer, so far as I could learn, is not found in this district; but the Sambar is a still more noble animal, and among the Kharwar of the hills is rather classed with the cow than with the deer. The Axis or spotted deer is found in all the woods of the low country. The Porcine deer is also found among long grass in the skirts of woods, and is a species worth rearing, as it is very easily rendered familiar. In the woods of Jagadispur I

heard of a black deer (Kala Harin), which may perhaps be the male of the animal next mentioned ; but at the menagerie I once procured a black coloured deer, said to have come from the west. Except in colour, this strongly indeed resembled the Porcine deer, but was larger, and if not a distinct species, must be considered as a remarkable variety. The *antelope cervicapra*, or common antelope, is either the most common of these animals, or from its frequenting open plains, is the one which the traveller most usually sees. In the low lands of the Tilothu division, the most common deer is said to be the Kotara ; but I could procure no specimen, nor did I see any running wild. I should have supposed that this is the same name with Kotar, the appellation for the female porcine deer ; but the people assure me that its horns have no branches, in which case it must be an antelope. It differs however from the common antelope, or *cervicapra*, in its horns being not spiral. It is smaller than the Axis, and lives hid among the woods at the bottom of the hills. It is only seen in the hot weather of spring, when it comes at night to the river Son in search of drink. The people then lie in watch, and shoot many. The animal, which at Shahasram is called Chhikara, is probably the same ; as the people said that it has small horns, and does not live like the Kalasar (*antelope cervicapra*) on plants, but in the forests at the root of the hills. They say also, that it less than the axis† it may however be the porcine deer. In the same vicinity is found a deer with four distinct undivided horns, which, in many other respects is said to resemble the Kalsar. It is called Chauraha, but I could procure no specimen.

The Ghoraraj, mentioned in the account of Bhagalpur is no doubt the *antelope picta* of naturalists, or what the English in India call the Nilgai. This name, signifying a dark coloured cow, is not in use among the natives of Behar ; nor do I know from what part of the country it has been brought. At any rate it is a very bad term, not only as the animal is not a cow, but as the female is red. The same is the case with the young male, and this circumstance induced me to suppose it to be at least a variety of the *antelope picta* ; but I had here an opportunity of observing in the same herd, the red colour of the females, and the dark colour, approaching to black, of the adult males. A similar difference of colour,

it must be observed, takes place in the common antelope. In this district the Ghoraraj is found only on the table land. The same is the case with the Gaur, or animal of the tribe of Bos, mentioned in the account of Bhagalpur. The people here also know it by the name of Gaur, but they usually call it Harna, the name given in Bengal to the wild buffalo. From the horns shown by the Kharwars, I know that their Harna is the same with the Gaur of Bhagalpur. In general it frequents the thickest woods, nor could I induce the Kharwars to undertake a hunt while I was on their hills. They alleged that it would be then totally useless, and that they never saw the animal except in the heats of spring, when all the woods are burned, which compels the Gaur to leave his usual haunts, and to repair to the few springs then containing water. At that time the Kharwars lie in watch and shoot him; but with great fear, as the animal is very formidable, both from strength and ferocity. It usually goes in pairs.

In the woods of Jagadipur and Dumraong are some wild cattle (*Bos Taurus*) of the common breed; they resemble entirely in form and in variety of colours, those bred about the villages of this district, but are more active, and very shy. The Raja of Bhojpur, and his kinsman Sahebzadeh Singha, carefully preserve them from injury; and say, that owing to the encroachments of agriculture the number is rapidly diminishing. Many of their neighbours, however, alleged that the devastation committed by these sacred herds was very ruinous, and every year occasioned more and more land to be deserted. The origin of these herds is well known. When the Ujayani Rajputs incurred the displeasure of Kasem Aly, and for some years were compelled to abandon their habitations, some cattle were left in the woods without keepers, and on their owners' return had acquired the wild habits, which their offspring retains. Several calves have been caught; but it has been found impossible to rear them, their shyness, and regret for the loss of liberty, has always proved fatal. This shows what difficulties mankind must have encountered in first taming this most useful animal; and it should prevent those from despairing, who in the attempt to domesticate wild species of animals, may meet with frequent disappointment. Many of the larger and stronger species of antelope with which Africa especially

abounds, might be found in the highest degree useful, could they be rendered as tame as the ox, and this might probably be effected with no greater trouble than our forefathers had in subduing the stubborn and ferocious temper of the wild bull; but this valuable treasure, left us by our ancestors, has rendered us less industrious, so that we neglect the animals which a more extensive knowledge of the world has brought within our reach. It is not indeed probable that any species would on the whole be found equally valuable with the ox; but in many countries food fitted for supporting that animal is scarce, and there other breeds of tame cattle might be highly important.

Although, as I have said, there are a good many families of professed hunters, yet venison is seldom sold; but the Karwars on the table land, and many farmers near the hills, pursue the deer and other large game for their own use; and the Rajas are eager for sport. The matchlock is the implement of destruction commonly employed; nor did I hear of any nets. Hares are killed in every part, whenever it is intended to give a feast. The difficulty which I had in procuring specimens of the deer probably arose from an order that was passed some time ago to disarm the people, but which has never been strictly enforced. They were, however, unwilling before me to show an open violation of the law; and, as I have said, the matchlock is the chief or only means by which the natives here procure the larger kinds of game. The other animals are similar to those of Behar. Otters and porpoises are numerous.

Birds of prey are numerous, and a few, of small kinds like sparrowhawks, breed in the country; but most of those intended for sport come from Nepal. Partridges and quails are what they chiefly pursue; even with the falcon and with smaller hawks they pursue the Salika (*Gracula tristis*). Neither afford good sport. The birds are so much afraid whenever they perceive the hawk, that they dart into the thorns, and allow themselves to be taken by the hand rather than rise. The only pursuit worth notice that I saw in several days hawking was from a large bird of prey named *Jimach*, which attacked a very strong falcon as it was hovering over a bush into which it had driven a partridge. The moment the falcon spied the *Jimach* it gave a scream, and flew off

with the utmost velocity, while the Jimach eagerly pursued. They were instantly followed by the whole party, foot, horse, and elephants, perhaps 200 persons, shouting and firing with all their might, and the falcon was saved, but not without severe wounds, the Jimach having struck her to the ground; but a horseman came up in time to prevent her from being devoured. I have never been able to procure a Jimach; but it appears to be a small eagle, and is said to live entirely on other birds of prey. Partridges and quails are much sought after for eating, and are very abundant. Peacocks are also numerous on the precipices which bound the table land; but, owing to the dryness of the country for the greater part of the year, water-fowl are scarcer than in any part of northern India that I have yet visited. Parakeets are very numerous. Some kinds of crane are the most destructive birds in this district, and are very numerous. There are several sorts of singing birds.

In the Ganges there are tortoises, but they are seldom eaten, unless it be by fishermen; and I had no opportunity of making any new observations on this subject. In the Ganges both kinds of crocodile are common, and it is said that the Karmanasa abounds with these terrible reptiles. In the Son there are some, but not many. No one pursues them. On the plains serpents are very numerous and dangerous. I am told that on the table land they are seldom, if ever, seen; and even in the vicinity of the hills they would appear to be usually less destructive than towards the north. In some seasons it is alleged that they are much worse than others; for instance, at Shahasram, where from 20 to 25 people only are usually killed by them in the year, it was alleged that last year not less than 100 perished. According to the reports which I received, these reptiles may annually kill from 130 to 190 persons.

Except on the banks of the Ganges, where there is a good supply from the middle of October to the middle of June, fish are everywhere very scarce, and in general also of a very poor quality. The small channels between the Son and Ganges, near their junction, form the best fishery in the district, as it gives a regular supply throughout the year. In the Son there are a good many fish, and their quality is excellent. Shells for making lime are abundant towards the

Ganges. This lime is chiefly used for chewing with betle. What is wanted for building is made from limestone, which abounds in the hills.

PLANTS.—In none of the districts which I have hitherto surveyed have I made so small an addition to my collection of plants; for, notwithstanding the numerous woods and wastes, scarcely any plants were in flower when I visited the district, and almost every thing that I met had been previously seen. The whole of the inundated land that is waste, exclusive of roads, banks, and unavoidable corners, amounts to only two miles, and is covered with reeds and bushes of the tamarisk common on the banks of the Ganges. I saw none of the rose trees so common towards the east. Of the level parts exempted from regular inundation which produce ligneous plants, there are about 343 square miles, of which about a third part may be covered with bushes, and two-thirds with forest. In the greater part the bushes grow on poor dry land, and are thorns, chiefly different kinds of *xizyphus*; but in some parts, where the soil is good, the bushes consist of the Paras tree (*Butea frondosa*) in a very stunted state. Of the 764 miles of hills and table land that are waste, about 500 are woods. All the causes mentioned in the account of Bhagalpur, as tending to keep the woods in a stunted condition, operate on those on the hills; but the extent in proportion to the demand being much greater than in Behar, the woods are not so much affected. On the plains again none is cut for occasional cultivation, the woods are not burned in spring, and some are carefully preserved. In some of these the trees are of a tolerable size; but one of them, consisting chiefly of Khayer (*Mimosa catechu*), does not attain a considerable height; and by far the greater part is stunted by cutting for fuel, and for the sticks used in the houses of the natives, and in making the implements of agriculture. In such parts of the forest near Jagadispur and Dumraong as are not preserved for hunting, several of the trees are stunted by pruning the branches to give them to cattle for forage. On the whole, even the woods that are preserved do not by any means arrive at a stately size; nor do I think that in the whole district there are 10 fine trees, except such as are in plantations, which are however very numerous and stately. The woods, however, are sufficient

to supply the country with the few posts, beams, and planks required by the natives; but an European could not procure materials to build a very ordinary house, according to our construction. The palaces that were built by natives consisted entirely of stone. The observations which I have made on plantations in the account of Bhagalpur and Behar are applicable to most parts of this district, where mango trees in particular have been multiplied to a most absurd length.

A few cocoa-nut palms have been planted as curiosities. I saw one or two of them loaded with young fruit; but it was said that it would not ripen. The Khayur palm is very scarce. The Tar or Tal palm is more common. The same confusion prevails here, as in all the districts hitherto surveyed, concerning the term Gambhar. At Arah the *Trewia* with smooth leaves was called by that name; but in the woods of Jagadisipur the Gambhar, although used in medicine, seemed to be the *Gmelina*; I did not indeed see the flower, but the leaves were covered by an impalpable powder, by which those of the *Gmelina* may, I believe, be distinguished from those of either variety of *Trewia*.

Near Shahasram and the town of Jagadisipur has been planted a very ornamental species of *Bignonia*, which from the colour of its flower I call *fulva*, for I cannot trace it in any botanical work that I possess, and the people have not given it a name. It has probably been introduced by some pilgrim of the order of Fakirs, who in this respect are by far the most curious among the natives.

The oranges are much superior to those of Behar, and some that I procured were little, if at all, inferior to those of Silhet R. It is chiefly by Muhammedans of rank that they are reared, and by these they were probably introduced from Persia. The tree which Mr. Colebrooke considers as that producing olibanum is one of the most common in the hills of this district; and as in Behar it is called Sale, and its resin is called Salegond or Sale Lassa, nor is it applied to any use. At Chandalgarg, however, it is called Biroza, and is commonly sold as a medicine. When collected as it flows from incisions made in the tree, it is a viscid substance of the consistence of turpentine, but of a clear greenish colour. When the resin of the Sale has been allowed to dry before it

is gathered, it forms hard diaphanous masses or tears; but loses a great part of the odour which it has in its moist state, and which is more agreeable than that of the turpentine from pines. The Imli, or tamarind, is much used by dyers. The Aongra of Behar is here known by the same name. It is exceedingly common, especially in poor stony land; and when the woods in which it grows are not annually scorched, it is a very ornamental tree, having a good deal the appearance of the yew, but it is ornamented with vast clusters of fruit, which grow to about the size of small apples, and are greenish white on some trees, and red on others. This is an example of the variation of colour in a spontaneous plant; but such variations are much less common than modern botanists seem inclined to think, and the colour of fruits and flowers of spontaneous plants are in fact a more fixed mark than the form of leaf and the number of stamina.

The *Rotteria tinctoria* is called Kamina, evidently the same name with Komila used in Ronggopur. At Jagadispur the powder which envelopes its capsules is collected for a dye, and is sold by those who gather it at from 3 to 4 paisahs a ser of 44 s. w.; that is, at the usual rate of exchange, for from about 15½ lbs. to about 21 lbs. for a rupee; but any considerable demand would instantly raise the price enormously, there being few collectors and not many trees. Of the 327 square miles of clear waste land that is in the level country, perhaps two-thirds are covered with the Khatra, a long harsh grass, which is common also in Behar, and is also plentiful in many woods where the trees are rather thin. On the table land the same grass is also common in certain parts; but many others of still less value are intermixed. There remain to be mentioned a few plants that are applied to various purposes.

There is a dwarf species of Phoenix, which has no stem (*caudex*), and which seems to have been known even to Pliny. It grows in all dry situations in India where the soil is stony, or of a hard clay. In this district it is called Palawat, and its leaves are bruised and formed into ropes of a very bad quality. Near Bhojpur, in the old channel of the Ganges, which has been described in the topography, there grow large quantities of a flag called Gongd and Petar. It has the appearance of a *Typha* or *Sparganium*, but I saw only the

roots and leaves. The roots consist of large fibrous masses, which send out shoots that are proliferous, and are eaten by the poor as a succulent vegetable; but the leaves are the part most in demand, and resemble in size and structure those of the *Typha Palustris*. The mats commonly used in all that vicinity as bedding are made of these leaves interwoven. In the middle and western parts of the district, which are best cultivated, and where grass for thatch is distant, the people use for this purpose the leaves of a *Scirpus*, which they call Nerai. I saw only the leaves and root, but am told by natives well acquainted with plants that it is the Godari of the native physicians, which is the *Cyperus dulcis* of Rumph (vol. 6, plate 3, fig 1), called by Willdenow *Scirpus Plantagineus*, although there is no saying whether he meant the Indian or an American plant described by Rottbol, and probably totally different. The Nerai, when I saw it, had none of the bulbs to its root, by which the Godari is known; but the natives say that these bulbs grow at certain seasons only; and they pretend to be sure about the identity of the plants. It grows in ditches and waste corners among the rice fields. Its thatch is very inferior to even the Khatra; but its use is more economical than that of straw, for which the cattle have the most urgent necessity. The climbing plant, called *Ventilago Maderaspatana* by botanists in the woods of Jagadisipur, is called Kewagli. From its seed can be expressed an oil that may be used for food; but the seed is there more commonly preserved and given to the cattle. In the dry season the leaves also are an useful forage, and the branches are then loped to bring them within the cattle's reach.

MINERALS.—In this district the mineral appearances scarcely admit of a division: most of what is to be said refers to the hills, which are everywhere of the same structure; and, commencing with these, I shall conclude with a few remarks on such mineral appearances as occur in the plains.

The hills of this district, from the Son to its western boundary consist of as regular horizontal strata as I have ever seen, and the same structure and rocks of the same kind continue, I know, at least as far as Chandalgar; only towards that fortress, the hills being lower and less abrupt, the horizontal disposition is not so evident as in this district, where there are immense abrupt precipices that admirably display

their structure. I must further remark that, although the hills here form one table land, and therefore appear to have a more level summit than those of Behar, which are all either peaks or narrow ridges ; yet, notwithstanding the horizontal disposition of their strata, not only the small detached peaks and ridges that are on both the table land, and that are scattered through the plain below, but also the sides of the table land are fully as abrupt and rugged as any hills of Behar, and they are fully higher than the Barabar cluster, which consists of the most entire granite. With the utmost diligence of search I could not perceive the smallest trace of animal or vegetable exuvia in any of the stones, of which they consist, except in one specimen of calcareous breccia, as will be afterwards mentioned.

The great mass of these hills, at least so far as appears on the accessible surface, is a kind of sandstone very fit for building, as, although much harder than our best freestones, it cuts well with the chisel, and is very durable. The stones in the works erected by Sher Shah and his family, from A. D. 1529 to 1545, do not exhibit the slightest mark of decay from the weather. It is much more difficult to break with the hammer than freestone, especially where fine grained. This is particularly remarkable in the small ridge named Maroriya, which forms the boundary between this district and Merzapur, where the stone is fully as tough as hornblende, and it was with the utmost difficulty that with a hammer, weighing about 4 pounds, I could break off a small specimen. The grain is very small, and of a brown colour, and the large masses, where broken, have a very strongly marked conchoidal fracture. The strata are of very various thicknesses, but in general are rather thin, although very fit for building walls ; that is, entire masses about a foot thick without flaws or subdivisions are by far the most common, and stones capable of forming large columns, 3 feet in diameter, for instance, are not usual. Very fine ones, however, might be procured in the quarry at Masai, which will afterwards be mentioned. The great demand, however, is for those which are much thinner, about 3 inches being the thickness best adapted for hand-mills ; and it is in search of pieces that will readily split into such flags that the workmen are everywhere bent. In general, it must be observed, that the adjacent strata vary a

good deal in thickness; that is, one which is 12 inches thick will have the one adjacent on one side 14 inches thick, and the one on the other side only 10 inches thick; but in the small detached hill called Pateswar, and in the long detached ridge south from it, the strata or flags are of a more uniform thickness than usual, being commonly from 4 to 5 inches, and they break readily square with the hammer, so that walls built of rough fragments of this stone look neater than those cut with the chisel, where the strata, being of unequal thicknesses, the stones have, as usual in the native buildings, been placed without any attention to an uniformity of thickness. In this hill of Pateswar, notwithstanding this uniformity of thickness, the stone varies more than usual, both in the size and colour of the grains. In some parts it approaches near to a granular hornstone, in others it approaches to the nature of an aggregate rock.

In some places the stone is red, although not of so bright a colour as that on the Enrick in the shires of Stirling and Dumbarton; in others it is whitish, but not of so pure a shade as the stone used at Edinburgh; but in most parts it has a colour approaching to brown paper, and is not subject to those ochraceous exudations which have injured the appearance of some houses in Glasgow, built with a stone of this colour. These colours are here seldom, if ever, intermixed, as in the siliceous rock of Behar often happens. The largest masses that I saw were of one uniform colour, but all the three colours are often found in the same vicinity. The only exceptions that I remarked are on the detached hill called Pateswar, which has lately been mentioned, and on the peaks called Bharkuriya, east from the pass of Tarachandi and north from Tilothu, which is also detached. Although the great mass of this last consists of the usual whitish coloured sandstone, there are portions of a larger grain that have different shades of grey disposed in alternate layers without any separation of substance, and which have much the appearance of a very small-grained gneiss. It ought to be remarked, that on Bharkuriya it is the larger grained stones which have the colours disposed in alternate zones, while on Pateswar this disposition is observed on the fine grained stone.

Owing to its hardness, the sandstone of this district serves

not only for building, but is used for the mortars of sugar-mills, for millstones, for potters' wheels, and for the stones used to grind the seasoning for curry; and for these latter purposes a considerable quantity is still quarried. The demand for building is at present very trifling, as few works are carried on in the vicinity, and Chandalgur being close by the river supplies all places at a distance. The stones, however, of both places are exactly of the same nature. In this district I observed that the workmen never dig to any considerable depth, and it seems to be the rocks only near the surface which have been softened by the action of the air and by a partial decay, that are fit for use. Nor is it every part of even the surface that works easily, or that affords large masses of a suitable nature. These circumstances render the quarries less numerous than might be expected, especially in places that are easily accessible. On most parts of the table land, indeed, there is abundance of stone fit for building, which greatly facilitated the construction of Rautas and Shergar, but the bringing stones from thence would be an enormous expense, and the precipice by which the table land is bounded is almost everywhere surrounded at the bottom by a mass of small broken fragments, to remove which would be exceedingly difficult even were good stone to be found on the removal, which is very doubtful, as the lower strata are perhaps nowhere sandstone. In the pass east from Shahasram, at Tarachandi, where both hills gradually slope down to each other without any great overhanging precipice, is the quarry to which there is by far the easiest access; and it is indeed capable of furnishing excellent materials for building to any extent, and with very little trouble. The only other quarry that is easily accessible is at Asman Kothi, near Chayanpur, on a small detached hill that is less abrupt than usual. Why all the quarriers do not work at these accessible places it would be difficult to say; but in many places they prefer going to the top of the hills from whence even the small stones for hand-mills and rubbing curry are brought with much trouble, nor is there any apparent difference between the stones there and at the places which are of easy access.

The finest stones, especially those for the mortars of sugar-mills, which require very large masses, come from a small detached hill called Masai; and, although the quarry

is high, the precipice admits of the stones being rolled down. Most of the smaller stones are procured from various places, Gaighat, Sonpura, Balai, Surai, and Dihira of the table land near Tilothu, from whence they are sent down the Son to Patna. This stone, in breaking large masses, discovers a good deal of the conchoidal fracture, and is nowhere of an uniform substance, but consists of small earthy grains with some of a micaceous nature intermixed. Not only the colour, but the size of the grains, even in the kinds which are reckoned equally good, is subject to considerable variation. In some parts, as I have observed, the workmen find this stone too hard for their purpose, although to external appearance there is little or no difference, only that the softer the stone is, it has usually more of an earthy appearance; and that, which is too hard, approaches in some places nearer in its appearance to granular quartz or petrosilex, and very often contains small nodules of quartz, as at Asman Kothi above the quarry that is wrought, or of other natures as some on Pateswar, the hill lately mentioned. On the detached hill, called Suraiya, towards Chayanpur, in some masses scattered on the hill, these immersed nodules are more numerous and various than anywhere else, that I have seen, and these masses have an exceedingly anomalous appearance, as will be afterwards mentioned. In other places again, as in Jabra, one of the small detached hills towards Naukha, the siliceous stone consists of larger grains, rounded indeed at the angles, but evidently consisting of fat quartz immersed in a powdery matter, which I take to be decayed felspar. This exactly resembles the hard stone in the hill called Kamuya, near Loheta In the Bhagalpur district, although that is in a vertical arrangement of strata, while those of the Naukha hills are most evidently horizontal. In fact I look upon the classification of minerals from the position of the strata, in which they are found, to be quite contrary to nature, and to have arisen from a vague hypothesis concerning the formation of the earth, which is supported by numerous frivolous distinctions, while the most real and striking differences are overlooked.

Far from considering the horizontal or vertical divisions of rocks as arising from different circumstances attending their creation, I am apt to think rather, that they owe their origin

to the decay of rocks, that have been long exposed to the action of various external causes; but in the classification of rocks all such hypothetical conjectures should be most carefully avoided, as only tending to pervert the judgment in the examination of nature. How far this sandstone and other granular siliceous rocks may descend into the earth, I cannot exactly say; because no openings have been made, but I am inclined to think, that they are only superficial, and that they consist partly of aggregate rocks, and partly of siliceous hornstone in a state of decay, the aggregate rock having been uppermost, as in the small peaks of the hills near Naukha, Pateswar, and Bharkuriya, above mentioned, which emerge to no great height from the level. The lower strata of the great mass of hills, in some places laid bare by torrents, or where access could be had to the abrupt rock, would appear to be hornstone. One of the curious reasonings, arising from the above mentioned hypothesis concerning the structure of the earth, is, that because granite and other aggregate rocks form the summits of the highest mountains, (which however is not universally true) they should be considered as the basis of the earth, upon which all other rocks have been deposited. Had we in digging to great depths always come to such aggregate rocks, and never been able to penetrate through them, the argument would, in my opinion, have been more tenable. Setting aside, however, these hypotheses, I would observe, that west from Tilothu, on the summit of the table land, there is a quarry of millstones at Surai in no respect different from the usual sandstone, and of a whitish colour. On descending the precipice, a little way, there is a kind of slate, or very thin flag, which was used by an European in the vicinity to cover the roof of his house, not as slates are in Europe, but in place of the tiles, which in India are placed horizontally on the burgers, and are covered with a terrace of plaster. These slates are about three-quarters of an inch thick, very light, and, although of an earthy appearance, have not the gritty substance of sandstone; but approach nearer to petrosilex in their appearance; and a little lower down the rock is more decidedly of that nature, and still in plates, although too thick for the purpose to which the other was applied. A little south from thence, at the pool sacred to Totala Devi, which

has been already amply described, the rock adjacent to the pool is a hornstone still more clearly marked, and I suspect, that in general such extends everywhere under the sandstone, but is mostly hid by the rubbish which has fallen down, and forms a slope at the bottom of the precipice; but which at Totala Kund has been entirely swept away by the torrent.

This hornstone of Totala Kund is of a dark grey colour with many black micaceous grains, such as abound in the sandstone, and consists of very fine grains, but it has a perfect conchoidal fracture, and is very hard. The gradual transitions from it to the perfect formed sandstone may be admirably traced on the face of the immense rock, over which the torrent falls; and the real nature of the strata is clearly shown not to be essentially different from that of the siliceous jasper, or hornstone, fully described in the account of Behar; that is, it evidently consists of trapezoidal masses, formed by horizontal and vertical fissures. Towards the summit of the rock, where it has decayed into sandstone, the horizontal fissures are those that are chiefly conspicuous, and indeed resemble the rows of a well built wall; while towards the bottom, where the rock is most entire, and still a petrosilex, the vertical fissures are the most distinct, although even there the horizontal ones are abundantly manifest, both uniting in the first 60 feet of the ascent to give the trap or stair form to the rock. An inscription carved on this rock has already been fully explained, so far as it tends to throw light on the history of the people; but it is curious also, as throwing light on the history of the earth. It has been usually supposed, that the hills are perpetually suffering rapid decay, and are sweeping with great speed into the ocean; but here we have the naked face of a perpendicular rock exposed to the united action of wind, sun, and water, in the very manner in which these great causes of decay should operate most violently, for between 800 and 900 years. During this long period the letters remain perfectly distinct, nor can the rock have lost one-hundredth part of an inch from its surface. The time required, on such data, to produce any considerable effects on the earth, is so monstrous, as to render the whole hypothesis doubtful; nor has the alluvial earth, swept from the mountains of the countries

longest known in history, been able to fill a corner of the smallest lake, much less to make those changes in the ocean that are supposed to have taken place; nor need it be apprehended, that in a million of years will even Constitution Hill be carried from the good people of London to the Godwyn sands; and much less, that the grandeur of the Alps should suffer a perceptible diminution. Although, as I have said, the appearance of horizontal strata is everywhere in this district most clearly marked; yet the vertical fissures show themselves in many other places besides Totala Kund, and in some parts have separated from the surface of a perpendicular rock large masses, which stand thus insulated in the most fantastic manner, and threaten to overwhelm whoever approaches their tottering basis. One of the most curious of these is at the precipice bounding on the south ditch at the Kathotiya gate in Rautas, where a chasm, not above $1\frac{1}{2}$ foot wide, separates to a considerable length a thin mass of rock at least 100 feet high. Yet it is evident, that this chasm existed in its present state when the works were built; nor is the separated rock above a few feet thick.

The siliceous hornstone, as forming the stratum under the sandstone, may be also traced in some other places at a considerable distance from Totala Kund, supporting the opinion, which I have stated, that the sandstone in a great measure has originated from the hornstone acted upon by various causes of decay. At Yadunathpur the rock immediately contiguous to the Son is a petrosilex, divided into cuboidal masses by fissures some running east and west, some north and south, and others nearly horizontal, but having a slight dip to the south. Where most entire, this hornstone is of an uniform colour and substance, and more perfect than that of Totala Kund; but the greater part is much decayed, and is crumbling into fragments like dry clay. In these the substance has been divided into thin layers of different colours, and curiously waved. In most parts not only the larger masses, but the fragments, into which these are crumbling, are cuboidal. In one place, however, I observed it dividing into vertical plates running east and west. In the northern face of the hills I did not indeed find the siliceous hornstone forming a rock; but the channel of Gup-teswari, in the deep recess behind Shergar, contains nume-

rous siliceous stones, among which are many fine black masses, that serve for touchstone; and among these I procured a piece of colourless rock crystal.

Next to siliceous stones the calcareous are in these hills the most common. In general the limestone is found in the part of more moderate ascent, that is at the bottom of precipices, by which the table land, and detached ridges are surrounded; but I have not been able to ascertain, whether strata of it penetrate under those of the sandstone, or whether it is only placed adjacent to the siliceous matter. I think however, that the former is the most probable opinion; for it is found very far up in the recesses behind Shergar, and in that, through which the Karmanasa flows, and the former reaches very near the centre of the table land. Besides being found in these deep recesses towards the centre of the table land, it is found in many parts of the lower declivity, which surrounds the table land on its eastern and northern face; but I saw none on its southern. The whole of the little detached hill named Murli, which stands north-east, at a little distance from Rautasgar consists of this material, and it is found also on the lower part of a small hill called Suraiya, which is detached at a considerable distance from the north side of the table land. Being thus found round and among the sandstone, towards the lower part of the elevations consisting of that substance, it may be conjectured, that it penetrates under it from one place to the other; but, although in the places, where it has been wrought, I could perceive, that the rock higher up the hill was siliceous, yet I nowhere so evidently saw the limestone running under the sandstone, as the petrosilex does at Totala Kund; and, as I have said, the calcareous matter may be only adjacent to the siliceous rock, and may neither pass under it, nor be supported by it; although in one place, as will be afterwards mentioned, there is reason to think, that the latter at least is the case. In different places the calcareous rock assumes very different appearances, which I shall now describe.

The most common form is that called Gati by the natives. It is the most compact limestone that I have ever seen, the grains being perfectly impalpable, and the fracture conchoidal, while it emits fire copiously, when the rock is struck with a large hammer, and it is very difficult to break. It is in gene-

ral of a very dark grey or black colour, and from its first appearance I could scarcely convince myself that it was not hornstone. It burns however into very white good lime, with which all Patna and Shahabad are supplied. In some parts it contains white veins, and in others it is composed of various zones of different shades of grey, cinereous, red and white. The white matter has always a crystallized structure; but where the zones of different colours prevail the grain is usually larger, and of a more earthy appearance, than when the colour is uniform. A second kind of limestone consists of whitish opaque crystals, closely compacted together like the sugar candy of Europe, but small and quite irregular in form. On the surface, so far as has been wrought, it is full of rents and little cavities, that would prevent it from taking a polish; but by digging it will probably be found to constitute a fine marble. A third kind of limestone is the calcareous Tufa often already mentioned. On the plains it is most usually in the form of nodules, but on the hills it more commonly forms a breccia, consisting of a whitish matter in which they are imbedded various fragments of different colours, but all portions of the limestone called Gati. This Breccia, although entirely calcareous, is not applied to use.

A fourth appearance of the calcareous matter is called Asurhar, and is a very porous irregular brown or white tophaceous matter, which looks somewhat as if it had been deposited on mosses, but this arises from its various pores and ramifications being in some places minute; for it has nothing regular in its structure resembling the stems and leaves of these vegetables: yet it evidently derives its form from the liquid calcareous matter having flowed on some figured mass, probably earth intermixed with some broken stems and leaves of plants. It has in fact a strong resemblance to what in the south of India I have considered as a petrified white ants nest; but has fewer and smaller pores, so that its origin or mould must have been different. This makes very good lime. A fifth kind of calcareous matter is stalactite formed by water dropping from the roof of a cave, which consists of the most common kind of limestone. Finally another appearance of the calcareous matter in this district, is that of stone marl, which is called Khari by the natives, and in fact strongly resembles the indurated clays called by that name in Bha-

galpur:* but it effervesces most strongly in nitric acid, and evidently is the compact limestone in a state of decay. It is chiefly used for white-washing walls.

The granular crystallized stone is supposed in modern hypothesis to be of primitive creation, while the compact stone is considered as of a much more recent origin; the Tufa, Breccia and Asurhar are considered as quite modern, and stalactite, I am ready to admit, is now forming. I shall therefore give an account of several of the situations in which these substances were observed, to see how far appearances agree with the above suppositions.

The small hill of Murli, about a mile north from Akbarpur is one entire mass of limestone, about three-quarters of a mile long, and 200 feet high; but the rock extends under the soil of the plain to an unknown length, and at the south end of the hill, where it is wrought, may be traced for several hundred yards. The great mass of the hill consists of the Gati disposed in strata nearly horizontal, but having a dip towards the west. The strata are thin, and in some places have much the appearance of flint; but more commonly they are somewhat earthy, and the masses consist of various zones differing in colour, grey, black, white, red, and ash, but uninterrupted by fissures. In many places their surface is covered by white crystallizations. A little way up the hill are masses of the breccia, consisting of white tufa, having imbedded in it portions of the limestone, the angles of which are rounded.

One of the limestone quarries now much wrought is on the bank of the torrent which comes from Totala-kund, before it emerges from the recess into which that natural curiosity is situated. The right or south bank of this torrent is high and abrupt, and having been in several places undermined by the water, masses of a calcareous breccia have fallen down, and covered the surface. It consists of the tufa involving small fragments, mostly angular, and, so far as I tried, all calcareous; but they are of various appearances, red, grey, ash, and white, the latter always having a crystallized structure, while the others are compact. In some places also earth has been involved, and I saw two small univalve shells, one

* See vol. ii. book 1.

of which I lost in breaking the specimen ; but they were both similar, and although they look calcined, appear as if they had belonged to some of the small snails that are usual among the herbage. Although I broke many pieces, I could find no other remains of animals ; but these are enough to shew that this breccia is of modern origin, that is, has been formed after animals had inhabited the hills. It is every where quite superficial. The abrupt bank in many places is earth ; but in one place is the quarry of limestone, which is disposed in thin parallel layers, having a dip towards the west of about 40 degrees from the horizon. These layers are partly whitish, partly horn colour, are very fine-grained and compact, with a very evident conchoidal fracture. In some parts they are covered with white crystallizations, and in others the external layers have been coated with the tufa. The lime which they produce is beautifully white. In some places the layers are not so thin, and are rejected by the workmen as not burning into lime, and in fact they scarcely effervesce with the nitric acid, although it produces a slight effect ; but in other respects their appearance is exactly similar to the limestone, and they are encrusted in a similar manner by the tufa and white crystallizations, both perfectly calcareous. In fact, they are evidently petrosilex changing into limestone, and are probably connected with the hornstone of Totala-kund, although I could not trace them the whole way to an union. The natives consider them as unripe limestone.

In the channel of the torrent, or imbedded among the pebbles in its banks, are some schistose fragments, which the natives consider as dead lime. They are vastly lighter than limestone, and have a great resemblance to *khari*, or indurated clay, and do not effervesce with the nitric acid, but they still retain a good deal of the conchoidal fracture, and resemble much the lighter coloured zones of the limestone, for they are either of a white or yellow colour. These appear to me to be hornstone, which has been converted into a crust. About a mile north from the mouth of the recess in which Totala-kund is situated, and beyond a little projection from the table-land called Bhalmandra, there is another quarry of limestone of an excellent quality. It is situated nearly under the quarry of millstone called *Surai*, where the whole summit of the hill is a sandstone flag, while the precipice under it, as

I have already mentioned, consists of hornstone slate. On the north side of Bhalmandra are two circular recesses, which have very much the appearance of volcanic craters, being in the shape of funnels, of which one side has given way. The quarry is on the north side of those recesses, about half way up the moderate declivity, that is at the foot of the perpendicular rock. The surface of this declivity is covered with earth, and fragments of the sandstone and hornstone slate that have fallen from above. At the quarry five or six shafts have been made in an equal number of years, for with the first rainy season the roof always falls. In the middle of December the workmen had began to form a new one, but had only effected a narrow horizontal cut into the face of the hill, after carrying which as far as they conveniently could, which would be a very little way, they would sink a perpendicular shaft. The end of their trench was only about four feet high, and consisted of a rotten rock in thin plates, very much resembling the limestone of Totala-kund; but it is considered as useless, although by far the greater part effervesces strongly with the nitric acid; but many parts, like the unripe limestone of Totala-kund, resist in a great measure the action of this powerful solvent, and must still be considered as petrosilex.

The workmen, after sinking their shaft two cubits below where they were working, expected to find two cubits thick of good limestone (*Gati*), of which they gave me specimens. This is in thicker plates than the limestone of Totala, the pieces being from four to six inches thick, and it has suffered less decay; but its grains are larger and have a more shining appearance: still, however, it has a conchoidal splintery fracture, very much like petrosilex. Below this the workmen expected to find three cubits of a very compact limestone, in plates about half an inch thick, and separated by a white decaying substance: this they call *Chanra*, and never burn, although it effervesces strongly with nitric acid. Below this *Chanra* the workmen expect to find four cubits of a white substance, which they call ashes (*Rak*); but what had been dug last year, owing to its powdery nature, had been washed away by the rain, nor could I procure a specimen. Below these ashes the workmen expect to find four cubits of *Khari*, a very fine white stone marl, with an unctuous feel, as if it

contained magnesia. It is exported to some extent, being sent to Patna. An ox load delivered at the foot of the hill, is sold for four anas; the load is about 288 lbs. The workmen dig no farther, but the Khari rests on a whitish siliceous stone, of a granular nature, very like that on the summit of the hill. In some places this stone is stained red. From the account of the workmen it is undoubtedly in large contiguous masses, but whether it forms a regular stratum, or consists merely of blocks that may be supposed to have fallen from the summit, and to have been subsequently covered by the matters now incumbent, I could not from their account venture to assert. This is, however, the place where there is the strongest marks of the limestone being in a regular stratum passing under the hornstone, which is under the sandstone of these hills.

On the small detached hill near Suraiya, north from the table land, at a considerable distance, there are quarries of compact limestone, both on its northern and southern faces. This low hill is of a smooth surface and contains no projecting rocks, but the earth is intermixed with fragments of stone, some of them very large. Above the limestone on its northern face there is very little earth, and the quarry consists of thin horizontal plates covered with an ash-coloured crust, like the Chanra of Bhalmundra. When the plates are an inch or more in thickness, they have a resemblance to flint; but where thin, they have been entirely converted into the ash-coloured substance that incrusts the thicker ones. East from the small trench which has been made to take out the lime, the stones on the surface consist of calcareous plates, of a reddish colour in the centre, but covered with a light-coloured crust, and intersected by veins of a crystallized nature. This the natives did not consider as lime. Higher up the hill the detached masses were of the whitish sandstone usual in the country.

On the south face of the hill, and in the narrow pass between it and an adjacent ridge, is a quarry of stone marl, called here Khari. It is very white, and less unctuous than that of Bhalmundra; but it is used for the same purposes. It contains many masses of limestone, not yet changed into marl. Immediately below the marl, in the passage between the two hills, the naked rock appears, and consists of thin

plates of compact limestone, in general horizontal, in some however vertical; but this latter appearance I consider as a deception, as will be afterwards explained. Above the Khari the hill was covered, as on the north side, with fragments of the usual sandstone; but among these I found some which had an exceedingly anomalous appearance, resembling a breccia with a sandy cement, and nodules of various sorts, some of them much resembling the limestone, but on these the nitric acid produces no effect. This stone, as I have before mentioned, has a most anomalous appearance, and looks as if it had undergone the action of fire. The last place where I shall notice the compact limestone, is at the caves of Gupti Benares, the situation of which, in a recess near the centre of the table land, has been amply described in the topography. On the right bank of the Guptiswar, a little before that torrent turns west, at the bottom of a perpendicular precipice of the usual sandstone, is a large rock overhanging the stream, but in other parts sloping gradually to the foot of the precipice. It consists of compact limestone, in plates entirely resembling that of Totala-kund, and from one line to two inches thick. In general the plates are horizontal; but in some places they are curiously waved, so that in sections of them in certain places, they would appear vertical, which will explain the appearance of such in the last described place. Some of the thinner plates have a white crystallized structure, and some contain very distinct veins of white crystals; but the general mass has entirely the external appearance of petrosilex, and is both hard and tough.

The entrance into the cave is a little way up the hill, and is as high and wide as the usual dimensions of the different chambers of the cave, which are usually about 18 feet wide, and 12 feet high. The sides and bottom are very uneven, having very steep ascents and descents, while one side of the floor is often lower than the other, and shelving rocks project very irregularly from either side. The first apartment extends pretty straight east from the mouth for about 380 feet, having two great descents, one near each end. The farther extremity is called Patal Ganga; or the river of the pit, but there is no stream. At the end, indeed, is a small hole, which may possibly lead to a subterranean river, but I have not heard, that any one has ventured to

penetrate through this opening. About the middle of its length this first gallery sends a branch to the south-east, which after running 87 feet rejoins the main gallery; but, before it does so, it sends to the east a very narrowed low passage, through which the visitant must creep on his hands and knees. It is about 11 feet long, and leads into the west end of another gallery similar to the first, and extending about 370 feet to the west. About 140 feet from its west end it is crossed at right angles by a similar gallery. The south arm of this is the most considerable, is about 240 feet long, and contains the chief object of worship. The north arm is only 92 feet long, and is narrower and lower than most other parts of the cave, but terminates in an apartment called Tulari Chaura, which is 92 feet long, and in the middle is both wide and lofty. At the ends of these galleries also are narrow passages, which probably communicate with other galleries and apartments; but these have not been explored. The air in this cave is by no means hot. The thermometer on the 15th of January at Patalganga stood at 76°, while in the open air it stood at 78°. Neither was the air in any degree offensive, notwithstanding that, for the first 200 feet from the mouth, the cave nestles bats innumerable, and that I had with me between 40 and 50 people with four or five torches. There seem to be strong currents of air in the cave, which prevent the stench of the bats from being oppressive; nor do the crowds of pilgrims with very numerous torches find any inconvenience from want of fresh air. Excessive darkness seems to be the reason why the bats do not go farther into the cave. Even at Patalganga two torches produced so little effect, that I could not see from one side of the cave to the other, and the persons with me had the most strange appearance from the partial illumination which the torches occasioned. A good deal of this obscurity is no doubt owing to its requiring a considerable time to suit the eye to see in such darkness, after it has been long exposed to the glare of an Indian day, which in these recesses is strongly augmented by the rocks. After a longer stay, even in the farthest recesses, the darkness produced less remarkable effects; but still is more striking than I could have imagined; and no doubt far exceeds that in a room of equal dimensions, however closely shut for the occa-

sion. I had been led to expect many images in this cave; but, what are called such, are stalactites. Water drops from many parts of the roof; and wherever there is a drip, a stalactite forms on the place where it falls, and often also on the rock from whence it comes. The former kind at first assumes the appearance of a mushroom, which botanists call *Lycoperdon*. The mass, as it increases, rises more in height than it expands in width; and, its head being rounded, it has a strong resemblance to the phallus of a Siva Lingga. The individual stalactite, however, worshipped as the great god (Mahadeva), besides one great member about $4\frac{1}{2}$ feet high, contains several smaller, which surround the largest, and at the base are united with it into one mass, each being formed by a separate drip. The greatest mass of stalactite is in the crooked gallery, from whence the narrow passage leads into the interior. There are there several stalactites, such as that called Mahadeva, and which are called the five sons of Pandu; while from the roof above them are suspended many stalactitic flaps, like the ears of elephants, but much larger. I had for some time great difficulty in procuring a specimen; as I found, that breaking anything in the cave would be considered as a gross impiety, and give offence; but I at length met with an incipient stalactite, like a large mushroom, adhering to a small detached stone, and immediately put it into my pocket, without saying a word.

The natives have given no name to these stalactites, considering them as images of the gods; but a piece of the same substance, of a very fine crystalline quality was brought to me by a man, who said, that he had broken it from a rock on the table land, near Buduya, a little north-west from Rautas. He called it Silajit, which seems to imply merely an exudation from stone; for this has no sort of resemblance to the Silajit of Behar. When I procured this calcareous Silajit, I was far from the place from whence it was alleged to have come; nor when in its vicinity did I hear of any lime being found on the table land; and I suspect, that the man had broken it from some rock on the way up to Buduya by the great recess of Kariyari, which abounds in limestone. On the right side of the Karmanasa, in the narrow glen through which it runs for some way, after having fallen down the siliceous precipice called Chhanpathar, are several small cal-

careous rocks. The greater part consist of the substance Asurhar, which has been already abundantly described. One of these rocks consists of whitish crystallized grains, irregular in form, and irregularly compacted together. This must be considered as an aggregate rock, and has already been sufficiently described. It seems to be of a similar nature with the marble called Leruya, which has been mentioned in the account of Bhagalpur. The nodules of calcareous Tuffa so common in Bhagalpur and Behar, are common also in the level part of this district; and are sometimes burned into lime. Here they are found in two situations; one quite superficial in the channels of rivers, where it is usually called Akara; the other imbedded in a yellowish clay, at some distance below the surface, and there it is called Gangti or Grangat. On the bank of the Ganges in this district this substance is much less common than in some others, because most of the banks here are continually undergoing changes, one side giving way, while the new land is forming opposite, and in such situations I have never observed the calcareous nodules. It is always found, so far as I hitherto know, where the banks consist of a yellow or red clay, in which there is not the smallest appearance of stratification, which seem to me never to have been swept away by the river, and probably to have once been rocks of the kinds usually called primitive, but now decayed into this clay. As such clays are found chiefly on the south or right bank of the Ganges, near the promontories of the Vindhyan mountains, it is on this side chiefly that the calcareous matter is found; nor do I recollect between Rajamahar and Allahabad having seen it on the northern or left bank in above four or five places. In some places it is found in the bottom of the river forming stony flats, very dangerous, but not numerous. Most of such, as I observed, were of course above water, and I suspect, that all are dry, when the river is lowest. It generally forms large crusts two or three inches thick, full of holes, cavities, protuberances, and inequalities of all kinds, and adhering to the surface of the clay near the low water mark; but intermixed with these crusts are many detached nodules of very various forms, and often cylindrical, and branched like corals. These, I suspect, are formed in the clay, and fall down from thence on the beach, as the enveloping sub-

stance is worn by torrents ; for, as I have before said, such are found in the clay at a distance from any river. The crusts seem to be a formation by the water, when it is near the lowest ; but the clay seems to be as necessary as the water to the formation, probably as affording the calcareous matter, the particles of which gradually unite, as the river slowly washes the clay. When the river is swollen and rapid, it sweeps away the whole, in which manner I explain the appearance of the crusts near low water mark alone. Air is perhaps necessary to the operation, at least I have seen no crusts formed, where the clay appeared to be constantly covered. There can be no doubt, I think, that the formation is still going forward. On the banks of the Yamuna, where there is often gravel, the calcareous matter has in some places involved, this, forming a breccia, the nodules in which are mostly siliceous.

Although both the siliceous and calcareous rocks of this district make a strong resistance to the hammer, and break under it with more difficulty than one would expect from their hardness, which is a kind of presumption of their containing magnesia ; yet the rocks considered as appertaining to the genus magnesia are very few in number. On the detached hill, however, named Masai, there is a very fine quarry of indurated potstone, a little south from that of sandstone already mentioned. It is a considerable height up the hill, is disposed in fine horizontal strata, and may be wrought to a great extent without any expense in clearing, while the stones may be allowed to slide down the sloping part of the hill, the quarry being at the bottom of the precipice ; nor to look at it from a distance would one think, that it is different from the other parts of the hill, which consist of sandstone. Ahallyha Bai is said to have taken the stones from this quarry, with which she intended to build a bridge on the part of the Karmanasa, situated in the Merzapur district ; but at present the only demand is for making Linggas.

The indurated potstone of Masai evidently runs under the strata of sandstone, and much of the same substance may be had in every part of the hills, for at a very remote place, in the head of the great recess of Kariyari near Rautas, above a mine of alum, slate and pyrites, there is a stratum of

the same kind as at Masai, but rather harder, being as it were, more impregnated with siliceous hornstone.

This naturally leads me to describe the mines of alum, slate and martial pyrites, which the natives confound under the general name of Kasis, as from both they procure a very impure salt of this name, which seems to be a sulphat of iron mixed with much earthy matter, and somewhat deliquescent. The best mine is situated at the bottom of one of the recesses in the great glen called Kariyari, which on account of this mine is called Kasisiya Kho. The mine is at the bottom of a perpendicular rock, over which in the rainy season a small torrent falls from a tremendous height, and which displays admirably the structure of the mountain. The strata are nearly horizontal with a slight dip to the east; but vertical fissures may be also traced, and one of these has separated from the surface of an adjacent precipice a mass of rock as singular as that at the Kathotiya ghat of Rautas. It may be 50 feet high, 100 long, 10 feet wide at the base, and 8 feet at the top, and when viewed from one end, has the appearance of a natural column, standing quite erect at a little distance from the precipice, from which it has separated. The highest strata above the mine consist of the usual sandstone. Below that is the indurated potstone just now mentioned. Below that again is the ore, which runs round all the head of the recess, and from the potstone to the bottom of the precipice may be 10 feet thick; but it may sink deeper, no pains having been taken to ascertain its extent. So rude indeed are the workmen, who supply the manufacturers with mineral, that they use no iron implement, but break off pieces with a loose stone, which is a very laborious undertaking, as the ore is so hard, that it emits sparks of fire, when struck by a pick-axe. The workmen have however made a considerable excavation, and will continue enlarging it, until the roof falls, when the mine will be deserted as impracticable. The ore is of two kinds, that may at once be distinguished by the colour of the efflorescence, by which they are covered. The ore which composes by far the greatest part of the mine, has a very strong resemblance to the ore of alum, that is common in the south-west of Stirlingshire, is of a schistose nature, but where exposed to the air is covered by a yellow efflorescence, consisting in part of sulphur. Sulphur is indeed a necessary

ingredient in ores of alum; but in that of Stirlingshire I have not observed, that it effloresces on exposure to the air. The efflorescence on the ore of this district is not however entirely, nor even mostly sulphur; but thrown on the coals swells up from the water of crystallization, that it contains; and except impurities, mixed with it in taking from the rock, it is almost entirely soluble in cold water, so that the sulphur is merely a superficial efflorescence from the salt. This ore is little heavier than the potstone, under which it lies.

The other ore, which forms a band about two feet thick, is covered above by two or three feet of the slaty kind, while it rests on a stratum of it, of unknown thickness, and is a very heavy martial pyrites, or sulphuret of iron, in small irregular masses thickly imbedded in a black fine grained substance, probably of a similar nature with the schistose ore. The surface of this pyritical ore is covered by a beautiful white, or blueish saline crust, differing only from the former, in not being stained yellow by sulphur. It loses its colour by keeping in a corked bottle, and even there attracts moisture, so as to become viscid. I have little doubt, that this is the *στυπτηρία* and alumen of the Greeks and Romans, to whom our alum would appear to have been unknown.

About four or five miles north from the mouth of the great recess called Koriyari, in the bottom of which the above mine is situated, there is another, which is in a recess called Am-jhor. This is semicircular, and placed in a projecting part of the hills, and it has a good deal of the funnel appearance supposed to indicate the crater of a volcano. At the entrance is a small detached peak, on the lower part of which, at least, there is a compact limestone, like that of Murli, and perhaps the whole, as in Murli, may consist of that substance. As usual here the recess is surrounded by a perpendicular rock, extending about a third of the way to the bottom, while the two remaining thirds slope rapidly, and are covered with loose stones, earth and trees. Towards the bottom of the recess the perpendicular rock extends lower than usual; and the horizontal fissures are not there so distinct as in most parts of this district, although they may be easily traced; but vertical ones are more evident. A large torrent descends there down the rock, and forms a pool at its bottom; but I did not ascend so far, turning to my right, that is towards

the north, where a smaller recess named Telkap opens into the larger, and is that, in which the mine is situated. The only road to pass into the smaller recess is along the channel of a torrent, that falls down a precipice at its bottom. I ascended this channel, which is very steep, and filled with great fragments of rock, until I came to a perpendicular rock about 20 feet high, but the great precipice at least 200 feet perpendicular, was perhaps 200 yards distant, nor on account of the smaller one could I reach it. The mine of Kasis is however at the bottom of the smaller precipice, which is not the solid rock, but consists of large fragments heaped one on the other. There can however be no doubt, that the hill here is exactly of the same structure as at Kasisiya Kho, for these fragments consist of three kinds of stone. Two of these were the ordinary sandstone, one red, and the other brownish, the third was a black indurated potstone, exactly like that above the ore at Kasisiya.

The whole stratified matter under the precipice of loose blocks consists of ore of Kasis, but its extent is nowhere defined except at the surface; for neither bottom nor ends have been laid bare. The space that has been exposed is about 20 feet long and 6 feet high; but it is very probable that it may reach all the way to the mine at Kasisiya-kho, and that it may extend west under the hills to a great distance. The greater part of the ore, as at Kasisiya, consists of a black schistose lightish substance, disposed in horizontal plates. In the centre this substance is not covered by any efflorescence, and is lighter than the ore at Kasisiya. At one end it is heavier, and was covered with a saline crust. At the other end it has suffered much decay, is quite rotten, and its masses are covered by a white powder, and are much lighter than the other parts. Although all these are used as ores that of the heaviest end is reckoned the best.

Under the central part of the schistose ore there is here also visible the pyritical ore, similar to that of Kasisiya, and covered by a saline efflorescence. The natives call the efflorescence, whether yellow, white or blue, the flower of Kasis, and it is probable that until of late years these alone were used; for the first working of the mines the natives universally attribute to an European, whom they call Phogal who settled here to make indigo, and showed them the process for

extracting Kasis. He died after a residence of four or five years, and his house is now a ruin. Since the natives have obtained the art of procuring the Kasis by boiling the ore, the efflorescence has been much neglected. Mr. Phogal wrought both mines; but since his death that at Amjhor has been deserted. In the account of manufactures I shall mention the process now used at Kariyari.

In many parts of this district also a carbonate of soda effloresces on the surface, and is collected by the washermen, but is not prepared in any manner, nor brought to market. I have nothing new to add on the subject, the appearances here being the same as in Behar. I have only to observe, that in a field about half a mile north from the Thanah of Ramjar, which is covered with the soda, I dug a well. The soil on the surface was a poor clay, containing much yellow ochre, and produced very little herbage. As the well was sunk the earth became more and more sandy, and the quantity of ochraceous matter diminished; so that from yellow it changed to a pale ash or whitish colour. Although at the bottom it was very sandy, it contained a quantity of clay sufficient to render the dry clods pretty hard. The water was found at 14 feet from the surface, and was sweet enough to the taste, nor did it effervesce with acids; but on evaporating a kettle full to a small quantity, which was rather muddy, this effervesced strongly with the nitric acid. Whether or not this effervescence was occasioned by soda or lime, I had no means of ascertaining. It must be observed that the water, which I have mentioned in the account of Bhagalpur as being sweet, although immediately under the soda, may have been of the same nature with this, as I made no trial of it by evaporation.

In many villages there are wells, which contain a mawkish water called Khara, quite unfit for drinking, but highly prized for the irrigation of gardens. These are entirely of the same nature with those in Behar, and seem to owe their qualities chiefly to a combination of soda, although this by no means effloresces on the surface where these wells are in general found; and the water of the wells dug where this effloresces is sweet, such as I have above described, although it no doubt contains a little saline matter. In the Ramgar division are many wells containing a saline water, from whence is procured

a culinary salt, called Surya-pakwa Nimak. The wells are found in the manors (*mauzas*) Sadullahpur, Sijaura, Sarai, Uriyadi, Saraiya, Tarila, and Diha, all of which except the last are on the west side of the Kudara. Diha is between that river and the Durgawati. Tarila is the furthest north, and Sarai the furthest south, and the two places may be four miles distant. Sadullahpur, where the greatest number of these wells are found, is less than three miles east from Ramgar. There is nothing particular in the appearance of the soil round these places; and close to the places where the salt is prepared it is covered with rich crops of grain. The wells have been discovered by accident in digging for water for domestic purposes, for which this saline water is quite unfit, as it has a saline taste, not very strong indeed, but exceedingly disagreeable. The wells at Sadullahpur are about 16 cubits deep. The surface is a clay called Karel, which is reckoned the best soil in this district. Under that is found a pale rust coloured clay called Ujarki, in which there are black stains. The water is found in a clay called Lalki, which differs very little in appearance from the Ujarki, but is redder, and the workmen find that the latter does not answer for making the cisterns in which they evaporate the brine, while the Lalki and surface Karel are both fit for that purpose. In many villages nitre effloresces on the roads and mud walls, and a little is prepared. I have nothing new to offer on this subject, the efflorescence being exactly of the same nature as in Behar.

In most parts of the district good well water is abundant, and at a reasonable depth. The natives, indeed, complain much of the deepness and scantiness of the supply, but this seems merely an excuse for many who will not be at the trouble to water their land. A well, for instance, which they pretended was 16 cubits deep, I found on measurement was only 14 feet. On the low lands near the Ganges, indeed, the wells are deep, and often bad, as is especially the case near Arah, partly owing to their being saline, partly to the water being found in a black swampy substance; but in general the water is fully as near the surface and of as good a quality as in Behar. The wells are, however, often spoiled by being lined with a straw rope, in place of the rings of potters' ware that are usual in other districts. The straw rope is about 3

inches thick, and is coiled round from the bottom of the well to the surface in order to prevent the sides from giving way. It does not last long, and in decay communicates a bad taste to the water. Even in the hardest clay these wells last only two or three years. In this district, also, the water in wells often rises with a sudden rush (*bhur*); and this is here expected either when a well has been dug to the usual depth at which water is found in the vicinity without coming to any substance but clay, or when, after passing a bed of sand without procuring water, the workmen come to clay. In both cases the water is procured by driving a stake into the bottom of the well. In the divisions of Ekwari and Karangja most of the wells are of this nature; in the other parts they are less common. Indaras lined with brick or stone are in some parts pretty common, although they usually cost 150 rs., which here is a large sum, equal to the annual expense of a family of decent rank. Such a well, however, will last 100 years; and most of the petty Zemindars, principal farmers, and houses dedicated to religion, have one.

At the sources of the rivers, on the hills, there are fine springs of excellent water; but none of them very remarkable. Near Bhojpur, at the bottom of the bank of the old channel of the Ganges, is a small spring, considered there as a great curiosity. In the evening of the 26th November the thermometer, which in the open air had been at 76°, on being placed in this spring rose to 82°; but the water is collected by a small mound or bank into a shallow pool, which had been heated by the sun, so that probably the thermometer though placed where the water issued, was raised a degree or two above the actual heat of the spring. The same kind of pebbles that are found in the lower part of the channel of the Son, as mentioned in the account of Behar, are found in it as high up as the junction of the Koyel river; but not in greater quantity than between Daudnagar and Arwal. Above the mouth of the Koyel, the channel of the Son contains scarcely any pebbles of the diaphanous kind, but some few that are quite opaque, and which are of different colours, yellow, red, green and black; but these colours in each piece are uniform, nor could I find any specimen of a good quality. I have therefore no doubt that it is the Koyel which brings the pebbles of the Son from the hills, where it rises in the

Ramgar district; and I think it probable, from the similarity of the pebbles found on the Rajmahal hills, that the hills at the source of the Koyel will be found volcanic. It must be further observed, that the same hills which send the Koyel to the north to join the Son, send also a river of the same name towards the south, and near this Koyel is the only diamond mine, of which I have heard in the vicinity of Bengal; and this is probably that alluded to by Buffon as near the town of Soonelpour, situated on the river Gouil. I suspect indeed that the diamond in India is chiefly confined to the countries watered by the rivers which fall into the Bay of Bengal from the northern parts of the peninsula, although there are in Bundel-khund some mines of small importance. There is, at any rate, none in either Bengal or Behar. Potters clay is abundant, and in general makes strong ware. In Dumraong, however, the pots are brittle. In the division of Arah there is a red clay called Kabes, which is applied as a pigment before the pots are burned, as I have described in the account of Dinajpur.

The high abrupt bank of the Ganges, in many parts of this district, as well as elsewhere, consists of a schistose clay, which has very much the appearance of sandstone, but crumbles to pieces with very little force. Although called a clay by mineralogists, like many other substances included under that name, it possesses very little of the quality by which clay is most properly distinguished, and which is the forming a ductile paste when mixed with water. The schistose clay contains too much sand to form a paste of this nature. It splits into very thin plates of a brown colour, and its masses, when dry, have a good deal the appearance of the best kind of free-stone in this district, or to that of Chandargar (Chunark), which in fact is in some places quarried close to the bank of the river. On this account some have supposed that the freestone of this district is merely the schistose clay indurated by some unknown process of nature; and according to the common received opinion, this may be considered as confirmed by the horizontal position of the strata observed in the sandstone; for there is no doubt that the schistose clay is a deposition from the Ganges, as I have observed it in places that have most evidently been formed since the survey of the river by Major Rennell. The resemblance

between the two substances, however, seems to me but of a very general nature, for on a close inspection very material differences will be found; and I have before observed, that the sandstone of this district seems to be a petrosilex in a certain state of decay, and often excessively tough, or difficult to break under the hammer, owing probably to its containing a quantity of magnesia, while the schistose clay consists of a sandy mould, slightly conglutinated by mere desiccation. I must further remark, that according to a common received opinion, we might expect to find this schistose clay filled with impressions of animal and vegetable bodies, as it has evidently been formed by deposition from a river abounding in both, and it is usually supposed that all strata containing such impressions are alluvial, that is, have been once suspended in water, from which they have been gradually deposited intermixed with animal and vegetable matters still retaining their various forms or organization. The stratum of hornstone which I found on the bank of the Ganges in the Bhagalpur district, and which contained the impression of a common Indian fern (*Polypodium dichotomum*), joined to this common opinion, induced me to expect that in schistose clay I should find a variety of impressions; but in the search for such I have bestowed much vain pains, and am now convinced that the strata containing impressions do not take their origin from a gradual deposition of matter suspended in water, which, under many circumstances indeed, would destroy the organization of many of the animal and vegetable matters, before the deposition could take place. I therefore suppose that such strata owe rather their origin to violent commotions, which have overwhelmed the organized substances by the mineral matter, that afterwards became stone; and, as I have before said, the hills of Rajmahal, in which the hornstone containing the impressions was found, seem to be of volcanic origin, and volcanoes are known often to throw out mud,* or earthy matter mixed with water, in a temperature by no means so high as to destroy animal or vegetable organization.

* As in the Island of Trinidad, see Vol. II. of the History of the British Colonies.—[ED.]

CHAPTER V.

AGRICULTURE ;— CROPS CULTIVATED — HARVESTING — AGRICULTURAL
IMPLEMENTS—ASSESSMENT OF LAND ;—LEASES, ETC. IN SHAHABAD.

In this district 2,297 square miles are occupied by fields, plantations, gardens and houses. Near the Ganges very little land gives two crops in the year; and after corn, in the interior a much smaller proportion than in Behar, has pulse or other grain sown among the stubble, because less attention has been paid to preserve water for the latter part of the season; but, wherever the reservoirs are in tolerable repair, this kind of cultivation is much practised, and not only the pulses called Khesari and Chana, but wheat and linseed are raised in this manner, and by far the greater part of the cotton and Arahar land, although only once cultivated, may be considered as giving two crops, one being removed before the other has made such a progress as to load the ground with two crops at one time. The proportion of land that gives two full crops in the year, both preceded by cultivation, may amount to one-twentieth of the whole, including high and low; but consists almost entirely of the highest land in the district, immediately adjacent to the villages. Except a very trifling quantity of the pulse called Urid, of rape, and of the carminative seed called Ajoyan, nothing is sown on fields that are not cultivated, and the articles above-mentioned are only sown thus on the slimy banks of the Ganges.

Except on the low banks of the Ganges, rice is everywhere the greatest crop, although the neglect of some Zemindars, in repairing the reservoirs on their estates, has somewhat diminished the extent cultivated, and has very much reduced the produce of that grain, which among the farmers of India, wherever attainable, is always considered as the most substantial object of attention. On the whole one half of the whole district may now be cultivated with rice; but there can be no doubt, if proper pains were bestowed on irrigation, that few countries are better fitted for this valuable grain; and that an extended irrigation would render it fully as pro-

ductive as Behar; although, from some circumstance in the soil, the rice of Shahabad is never equal in quality to the finer kinds reared in Behar, nor can any be reared, that has the peculiarly agreeable smell of the Basmati. This valuable quality seems to entirely depend upon some inexplicable quality in the soil, analogous to that, which gives an excellence of flavour to the wine of certain vineyards, that no skill in the cultivator can imitate; nor is there any other kind of grain except rice, which, so far as I know, is liable to similar variations of quality.

All the transplanted rice is rather finer, than what usually grows in Bengal. Sukhdas, the finest, is very white, and its smell, although inferior to the Basmati even of Patna, is still very agreeable. The land, on which the seedlings are reared, is generally manured, and about an half of it is transplanted with rice, after the seedlings have been plucked. The remainder lies fallow. The seed is commonly made to sprout, before it is sown, and the quantity of unprepared seed (*Dhuriga*), that is sown here in any crop of rice, is very inconsiderable. Wheat and barley are often sown together, as in Behar.*

Here, as well as in Behar, there are reckoned three harvests. Reaping and thrashing are not considered as at all disgraceful, and all of high castes, who are not rich, assist in the labour. Many people are however hired, and those who at other seasons are day labourers, and poor artificers, are allowed in various parts from one bundle in twenty, to one in thirty-two, of what they reap; but their bundle is always considerably larger than those which the owner of the crop receives; and the proportion varies so much, that no adequate notion can be formed of the share which they actually receive, by knowing the number of bundles which the master takes, for every one that the reaper is allowed. By calculating the most usual allowances in each division, I find, that the lowest allowance given to the day labourer for mere reaping is nearly $3\frac{1}{4}$ per cent. of the gross produce, while the highest allowance amounts about $8\frac{1}{4}$ per cent. What is how-

* The other crops and their relative importance are given at full length by Dr. Buchanan, but they differ very little from his observations in Behar.—[Ed.]

ever called the expense of harvest is different from this, and is the allowance which is given to a hired ploughman, whose reward during the remainder of the year is not adequate, and as a bonus, besides the share usually given to day labourers, he is allowed an addition, and thus a part of the expense is thrown on the landlord, the whole of the allowance for harvest being taken from the heap of grain, before that is divided for rent. These additions are made in different places under different pretences, named Lorhu, Pangja, Ati and Uridaki, and amount in some parts to very near five per cent. of the whole produce, while in others they are less than one quarter per cent. When nearly so low, the servant receives an allowance for thrashing; where the additions are considerable, he thrashes for nothing. The whole expense of harvest charged to the landlord varies from very near 11 per cent. of the gross produce, to a little more than 6 per cent. The quantity of grain, said to be reaped by one man daily, differed exceedingly, in different parts varying from 3,445 s. w. or $81\frac{1}{2}$ lbs. to 13,630 s. w. 349 lbs.; and it must be observed, that, where the rate of reward is high, the quantity reaped in one day is always small; and vice versa, where the reward is small, the quantity reaped is great; although the ratio of increase is not always exactly in proportion to the rate of allowance; so that this is a very bad mode of rewarding the labourer. Where the rate is low, he is overwrought; and where it is high, he indulges his propensity to rest at the expense of his belly. At the rate allowed to a servant in the two places, to which the above statements apply, the man who cuts $81\frac{1}{2}$ lbs. a day, makes about $9\frac{1}{2}$ lbs.; while the man who reaps 349 lbs. has 21 lbs. for his labour; but this is severe. They both reap and carry the grain to the thrashing floor; but the man who receives the high rate, and makes the low wages, must also thrash the grain, while the other receives an allowance for this trouble.

Taking, as in Behar, the average of the statements given at 11 remarkable places, I find that the result gives nearly 7,600 s. w. or 195 lbs. for the quantity of grain daily reaped by one man; for which, if a day labourer, he is allowed rather more than 6 (6.177) per cent. and, if a servant, rather less than $7\frac{1}{2}$ (7.47) per cent of what he cuts.*

* Day labourers are $4\frac{1}{2}$ lbs. of farinaceous food *per diem*.

The whole grain is trodden out by oxen's feet. The straw thus thrashed in the rainy and cold seasons remains pretty entire, but that of all the crops which ripen in the parching heats of spring, is reduced to small fragments called *Bhusa*, which is considered as the most valuable fodder, and is carefully preserved; while the others are very much neglected. It must be observed, that in most places of this district the people think, that rice cannot well be preserved but in pits, and the crops which are reaped in spring, they say can be preserved in no other manner, so that even in the inundated lands pits are used, and are formed on the higher spots, where the grain may be preserved throughout the year; but near the hills, on account of the white ants, pits cannot be used. All the grain intended for seed is usually preserved in the vessels made of clay (*Kuthis*). The most common granaries here are composed of a kind of basket made, like the beehives usual in Scotland, of a straw rope coiled spirally. These granaries contain 500 *mans* (52 sers of 44 s. w.) weight of grain, or 29,360 lbs. The large ones stand in the farm-yard, and are covered with a terrace of clay, which turns the rain; when small, they are placed in an end of the hut, and are very much exposed to danger.

IMPLEMENTS OF AGRICULTURE are nearly the same as in Behar. The sugar-mill* is similar to those in Behar; but the apparatus for inspissating the juice is more imperfect than in any district hitherto surveyed. There is only one boiler, a shallow iron vessel, which is placed in the open air on three or four lumps of clay, so that the fuel may be thrust under its bottom. This vessel is filled at once with the juice, which is boiled to the proper consistence, while a little ghiu or milk is added, and it is scummed, but with very small care. When the workman judges the consistence sufficient, the boiler is lifted from the fire. When the extract has cooled, it is scraped out with an iron instrument, and made by the hand into five roundish lumps, each weighing about 3 sers (80 s. w.), or $6\frac{1}{8}$ lbs. and is the nastiest looking stuff that I have ever seen. In three months a set of works, with seven men and four oxen, is supposed to clear four large bigahs of cane ($6\frac{1}{8}$ acres), boiling from three to four times a day. At this

* There are ten varieties of sugar cane grown in the Shahabad district.—[ED.]

rate the total produce of what one set of works clears in a year will be 4725 sers, or 9702 lbs. The expense of machinery, cattle, &c. is nearly the same as in Behar, that is, may amount to 14 rs. equal to 364 sers of extract. Each labourer receives daily $1\frac{1}{4}$ ser of the extract, so that the workmen take $787\frac{1}{2}$ sers, and the total charge of boiling and squeezing the cane amounts to $1151\frac{1}{2}$ sers, nearly $\frac{1}{4}$ ($\frac{2437}{1080}$) of the gross produce.

ASSESSMENT.—By far the greater part of the proprietors of assessed estates in this district complain, that the assessment is too heavy, so as to leave them little or no profit, and in many cases to exceed the value of the lands; and as a proof quote, that many estates having been put up to sale, no bidder has offered; and, the arrears having been lost to government, the lands have been let at a reduced price; and they also allege, that the revenue is so high, as leaving nothing to the owners, these have been unable to defray the expense of keeping the reservoirs in repair; and of course, that the country is growing daily less able to pay the revenue. Exclusive of the table land this amounts 1,132,677 rs. on an extent of 3151 square miles capable of being ploughed, of which 672 are now neglected, and 47 are in fallow, while the revenue of Behar and Patna amounts to 1,412,269 rs. on an extent of 5051 square miles, of which 616 are now neglected, and 29 are fallow. The revenue on Patna and Behar is at the rate of $6\frac{0}{108}$ Calcutta bigahs for the rupee, while that of Shahabad is at the rate of $5\frac{34}{108}$ bigahs for the same. So far is in support of the usual clamour; but the free land in Behar and Patna, being about $37\frac{1}{2}$ per cent. of the whole, and those in Shahabad being probably about 11 per cent. the actual rate of assessment in the former, will be about $3\frac{7}{108}$ Calcutta bigahs for the rupee, while in the latter it will be about $4\frac{04}{108}$ bigahs.

[*Dr. Buchanan enters at considerable length into the management of particular estates, but the accounts are nearly similar to those of Behar; the following refers to the Chauhan's estate, and will convey a general idea to the reader.*
Ed.]

In the public records the assessed lands* are divided into

* The measured lands are 616,105 bigahs and the measured free lands

390 lots, now chiefly belonging to new men ; and there are besides a good many, who hold lands in perpetuity as vassals of these tenants *in capite*, who are called Shikmis, and who declined to avail themselves of the offer made by Lord Cornwallis to free them from vassalage. A very few only of the farmers of land will accept of leases ; but those who do require one for each individual. The rates, however, are supposed to be fixed by custom, and it is thought, that more cannot be exacted. The gardens, and high land near villages that is constantly watered from wells, together with sugar-cane and cotton watered in the same manner, are usually included under one denomination, Gongyer, which is let for a money rent, and pays at from 1 to $1\frac{3}{4}$ rs. a small bigah, which is at the rate of from $39\frac{1}{2}$ to 69 anas for the large bigah usual in this district, or of from 21 to $36\frac{1}{2}$ anas for the Calcutta bigah. The outfield, called here Palo, is all let by a division of the crop. The expense of harvest tradesmen, Brahmans, and watchmen, are deducted from the common heap, and the remainder is in common actually divided in equal shares between the farmer and landlord ; but the former pay the whole allowance of the village clerk. This officer, the Tahisildar alleged, could only be removed by the collector ; but the owners of the land pretended, that they were only bound to report the change, whenever they judged it necessary to make one. A receipt is only given to the tenant at the end of the year. About three-fourths of the rents are farmed.*

69,696. The invalid establishment have also 36,133 bigahs, and 1,419 watchmen have 8,157 bigahs of land.

* On some private estates there are leases granted for five years.

CHAPTER VI.

FINE AND COMMON ARTS; MANUFACTURES AND PROFITS THEREON;
COINS, WEIGHTS AND MEASURES, AND COMMERCE, ETC. IN SHAHABAD.

FINE ARTS.—The architects, although formerly numerous, have, I understand, entirely disappeared; nor is there any person now qualified to plan such buildings as were erected by the Pathans or Man Singha. Sculpture is on a footing equally deplorable, and no one is capable of cutting even such wretched imitations of the human form, as were made by the Cheros and Sivas; nor is it now attempted to make any image except Linggas, in doing which the only merit must consist in the want of skill in the artist to imitate nature. There are no painters here dignified with the title Musawir; but there are some called Chitera, who resemble the Nukkash of Patna, and paint household furniture, the pageants used at the Muhurum, boxes, cards, the walls of houses, with figures of animals, and the gods, or even paint them with plain colours, thus uniting the arts of those who daub pictures, and of the Nukkash of Bhagalpur. These are as much inferior to the Musawirs as sign painters are to the Royal Academicians; but are very inferior to the sign painters of Europe, a black bull or Saracen's head, by one of whom would shame the best artist of India.

COMMON ARTS.—The soap made is not adequate to supply the district; what is used in the Company's factory at Sahar is sent from the Behar district; but the seven soapmakers seem adequate to supply all other demand. They reside at Shahasram, where the number of Muhammedans enables them to procure tallow. One boiler makes at each time 50 sers of 80 s. w. worth 7 rs. $2\frac{1}{2}$ anas. This requires four days, so that this quantity may as at Gaya be made seven times a month, but the quantity, admitted to be made here at each boiling, is one-quarter more than what was allowed at Gaya, which shows the great concealment made by the workmen of Behar. The cost is as follows:

To 20 sers of tallow, 2 rs. 14 anas; to 20 do. of linseed oil, 2 rs. 2 anas; to 40 do. of impure soda (Saji), 1 r. 4 anas; to 60 do. of quick lime, 2 anas; to fuel, 4 anas.—The profit, 6 rs. 10 anas.

Therefore on each boiling being $8\frac{1}{2}$ anas, the workman has

3 rs. 11 anas, 6 pice, a month. The seven houses at this rate make 16,800 sers (34,461 lbs.), worth 4207 rs. 14 anas. I have no doubt, that the quantity made by the workmen of the Behar district is fully as great in proportion.

A considerable quantity of paper is made here. In Sahar, opposite to Arwal, 60 beaters belonging to 40 houses were acknowledged; and 30 beaters in 20 houses are admitted to be in the Baraong division at no great distance south. The account given, in respect to the quantity made, entirely coincides with that procured at Arwal, that is to say, each beater makes annually 100 reams (Gaddis) of paper; but the workman here, instead of three qualities, divide it into four, the three lower of which are of the values specified at Arwal,* while the highest is worth 5 rs. a ream. They make four bales (Ghani) in the year, each bale containing 25 reams.

First bale of the 1st quality at 5 rs. per ream, 125 rs.; 2nd. do. at 4 rs. do., 100; 3rd. do. at $3\frac{1}{4}$ rs. do., 87 rs. 8 anas; 4th. do. at 2 rs. do., 62 rs. 8 anas.—Total, 375 rs.

Expense attending the above :

2,500 sers (44 s. w.) are about 2,823 lbs. of old bags, 62 rs.; soda (Saji) 1,600 sers, or 2,108 lbs., 40 rs.; lime 1,400 sers, or 1,582 lbs., 24 rs.; flour for paste 700 sers, or 791 lbs., 11 rs.; cloth for strainers, 5 rs.; earthen tubs and pots, 1 rupee; bamboo baskets, 4 rs.; mats, 2 rs.; ropes and twine for package, 2 rs. 8 anas; fuel for boiling the paste, 16 rs.; four men to beat and wash, 100 rs.; one man occasionally to stir the material, 3 rs.; preparing and applying the paste, 12 rs.; smoothing, cutting and packing, 10 rs.; working off the sheets done by the master, 25 rs.; cutting the bags, 1 rupee; mould or frames, 4 rs.; putting the sheets on the wall to dry, 6 rs.; watching the paper while drying, 4 rs.; horse-tail hair for separating the sheets from the wall, 12 anas: Profit, 41 rs. 12 anas.—Total, 375 rs.

The expenses here are no doubt exaggerated, as will be evident from comparing them with the account given at Arwal, and the owner of the beater, besides the $41\frac{1}{4}$ rs. has always the 25 rs. for forming the sheets, while most of the allowances for preparing and applying the paste, for smoothing, cutting, packing and drying, are gained either by him or by the females and children of his family. According to this estimate, the 90 beaters will annually prepare 9,000 reams, worth 33,670 rs.; but more is allowed to be exported by the traders of this district, persons not at all apt to exaggerate their dealings, and the number of beaters is probably at least 100.

* See Behar, *Arts and Commerce*.

The distillery of spirituous liquors is by no means so flourishing as in Behar; yet the people are less industrious, and by no means more quiet or orderly. The Mauhuya flower is almost the only sweet distilled, nor is grain ever used. The extract of sugar-cane is only used when it is cheaper than Mauhuya, which very seldom happens. The distillers pretended to have no gain, which owing to their being taxed is natural enough. A principal distiller at Arah says, that from 300 sers of flowers he procures 180 sers of spirit once distilled. He draws off his still 15 times a day.

The perfumers (Gandhi) of this district sell the oils mentioned in the account of Patna, but two men at Shahasram have stills, with which they extract an oil from the resin of the Sakuya, or *Shorea robusta*. I neither saw the process, nor oil, which is called Choya; but learn, that the powdered resin is put by small quantities at a time into the still, and that the operation is conducted without the addition of water. The oil which is procured must therefore be of the empyreumatic kind; it is however considered as a perfume, and used by the poor Muhammedans at marriages and funerals. The Hindus of Bengal also use it on some holy days; but it would seem to be rejected by those of Behar, although they burn as incense the substance from which it is extracted.

The oilmen are poorer than these of Behar, and about $\frac{1}{8}$ have too little stock to enable them to purchase the seed, and therefore express the oil for hire. Perhaps $\frac{1}{8}$ also, besides the oxen necessary for the mill, have others with which they carry grain to market, and trade in that article as well as in oil; but very few have more than one mill, there being estimated 2,880 mills to 2,780 houses. All the mills are turned by oxen; but the number of cattle is by no means adequate to keep the mills going all day, being only estimated at 2,975, whereas two oxen at least are required for each mill, to keep it going for the greater part of the day. It was stated that a mill with one beast squeezes linseed four times a day; at each time it takes four sers of 44 s. w. or $4\frac{1}{2}$ lbs. The value of all the seed is $3\frac{1}{4}$ anas; the oil procured is four sers, worth four anas, and the oil-cake 12 sers, worth one ana. A man and ox therefore make only $1\frac{1}{2}$ ana a day, which, allowing for accidents, will not give more than 3 rs. a month, and from this must be deducted the feeding of the ox,

and the repairs of the mill; the former is considerable, as the animal is fed on straw and oil-cake. We may therefore be assured that the profit is underrated; but in the whole district I procured no account more favourable.

Near the Ganges some carpenters build boats; but I could procure no account of either the number built or of the expense attending the construction. They are all clinker built, with very flat bottoms, after the form called *Patela*, which is sharp at both ends, while the boats of the upper part of the Ganges have a perpendicular square stern; and those of the Yamuna are throughout nearly of the same breadth, and have both head and stern in shape of a horizontal wedge, the rudder being fixed to one corner of the stern.

Manufacture of thread, strings, tape, cloth, &c.—Almost the only material used by the weavers here, is cotton; and according to the estimates which I received, 28 per cent. of what is used, grows in the country. Of all this the seed is separated by the women who spin; but the people who are called *Dhuniyas*, beat a great part before it is fit for spinning; and, this giving employment to many people, some *Chamars* have adopted the profession. The *Dhuniyas* purchase only what is required for stuffing quilts and mats, and sell it when cleaned and beaten. I have endeavoured, by the same means as in Behar, to form an estimate of the quantity of cotton thread spun, and the result is, that about 159,500 women are thus employed part of their time, and that the annual average produce of each woman's labour is very nearly about 8 rs., the whole value of the thread being in even numbers 1,250,000 rs. The total value of the raw material, including the cost of beating, was on the same authority stated to be in even numbers 10,14,000 rs.; so that the average annual gain of a spinner amounts only to about $1\frac{1}{2}$ rs., while the women of Patna and Behar, who spin only on an average 7 rs. 2 anas, 8 pice, have a profit of $3\frac{1}{4}$ rs. Near the Son, indeed, where the finer cloth is made, the people here acknowledge an almost equal gain, but in most parts the cloth is of the coarsest quality, in which case the value of the raw material is always proportionally greatest. Besides the profit above-mentioned, we must also allow somewhat for the seed, which the woman purchases with the cotton, and afterwards sells. The whole value of this may be 14,000 rs.,

which will add rather less than two anas to the average profit of each woman. Where the rates are lowest also, many of the women beat the cotton which they spin, which saving will raise a little their gain. This estimate seems to me liable to no great error, unless the number of people be supposed to have been estimated much too high; for the very lowest allowance that can be made for the clothing of such numbers, miserably as they are covered, will be 14,18,000 rs., and 240,000 rs. worth are allowed to be exported, while the imports do not exceed 24,000 rs. The cloth manufactured here ought therefore to amount to 16,34,000 rs., which at the rate stated by the weavers would require about 1,200,000 rs. worth of thread, and less than 50,000 rs. worth cannot be allowed for the other purposes to which thread is applied.

In this district there are properly no silk weavers; but 60 families in Tilotha are called Patoyas, a term usually given to such because they work cotton cloth with Tasar silk borders. The cloth is very coarse, and is called Dhuti. A piece containing a pair of Dhutis is 14 cubits long and 13 gerahs ($\frac{6}{17}$ cubits) wide, and sells usually at 50 anas. It requires $\frac{2}{3}$ sers of cotton thread, worth 9 anas, and $\frac{1}{8}$ ser of Tasar silk, worth 6 anas, so that the weaver has 5 anas profit, and a man and woman weave and warp seven pieces a month. As in the 60 houses there are 90 looms, or able-bodied men, all married, we may estimate as follows for one year:—

5,670 sers (11,490 lbs.) of cotton thread at 12 anas, 4,252 rs. 8 anas;
472½ sers (979 lbs.) of Tasar silk at 6 rs., 2,835 rs.; reward for stock and labour, 2,362 rs. 8 anas; 7,560 pieces of cloth, value of manufacture, 9,450 rs.

Each loom, therefore, makes a profit of 26½ rs. a year; but the man and his wife, besides warping and weaving, wind monthly 2,000 Tasar cocoons, which cost 10 rs., and procure 2 sers of Tasar silk worth 12 rs. From this we may make the following statement:—

2,160,000 cocoons at 5 rs. a thousand, 10,800 rs.; profit of winding 2,160 sers of Tasar silk, 2,160 rs.; value of silk wound in this district, 12,960 rs.; silk required for the manufacture here, 2,835; remaining for exportation, 10,125 rs.

The Patoya, therefore, and his wife, make annually by weaving 26½ rs., and by weaving Tasar 24 rs., in all 50½ rs., which in this district is considered as but a poor provision

for a family, less than 1 r. a month for each person, young and old, reducing the family to a very scanty allowance, and it is probable that the Patuyas make at least 60 rs. a year. They are said to live better than the common weavers.

According to the statements which I received, there are in this district 7,025 houses of weavers, who work in cotton alone, and who have 7,950 looms. It is admitted that in these houses there are more than 7,950 men able to work, but the surplus is said to be employed in agriculture. As, however, the weavers are a source of revenue to the landlords, I think it probable that more are employed in their profession than has been stated. Seven thousand nine hundred and fifty looms require 457,954 rs. worth of thread, and make 622,950 rs. worth of cloth. Each man, therefore, makes goods to the value of a little less than $78\frac{9}{16}$ rs., while in Patna and Behar the average acknowledged was rather more than 103 rs. Here, further, the total profit being 164,996, the annual average gain of each weaver will be nearly $20\frac{3}{4}$ rs., while in Behar a gain of $28\frac{1}{4}$ rs. was admitted.* In this employment each loom requires the whole labour of a man and his wife, and a boy, girl, or old person, besides cooking, cleaning the house, bringing water, and beating the rough grain used in the family, can do no more than warp and wind. We must therefore allow that the produce of a loom is able to maintain five people, as in such a family there will usually be two persons incapable from infirmity of person to do any work. But in this district no one will admit that such a family can be maintained on less than 48 rs. a year; so that we must allow that the weavers here make more than double of what they acknowledged. As I have before mentioned the quantity of cloth that is probably manufactured in this district amounts in value to 1,634,000 rs., and deducting from this 9,450 rs. worth of what is Tasar and cotton mixed, we shall have for these weavers' labour cloth to the value of 1,624,550 rs. According to this, the raw material or thread, agreeably to the statements given by the weavers, and liable to no suspicion, would be about 1,200,000 rs., leaving a profit of 424,550 rs. If, therefore, the number of looms be exact, each man would

* From these two statements it is evident that the truth of small profits cannot be far from an average of both districts.—[Ed.]

weave 204½ rs. worth in the year, and gain rather more than 53 rs. This is probably more than they actually do; as I have said that the number of persons in weaver tribes, who are actually employed at the loom, were probably underrated, but there can be little doubt that the individual weavers here make higher wages than was allowed in Patna; for I do not think that the exaggeration can be greater than in the proportion of 53 to 48. The looms employed are therefore probably $\frac{5}{48}$ more than was stated, or in all 8,778, in place of 7,950. This higher rate of wages is to be attributed to two causes. In the first place, provisions are higher, which has excited an industry that generally does more than counter-balance this evil. In the next part, no native merchants have established factories to make advances; and the cloth, which is purchased by native traders, is very generally bought for ready money on market days. On several estates the weavers are the porters called upon by the landlords to assist travellers, but either the wages made in this manner or the time employed can interfere little with the above calculations. The weavers here are less addicted than usual to music and singing hymns, which no doubt saves some time.

Salt Manufacture.—In the division of Ramgar, the saline wells, mentioned in the account of natural productions, employ some people to evaporate the water, and thus to procure the kind of culinary salt, called Surya pakka. The wells every rainy season are destroyed by the giving way of the sides. Each man therefore commences his operations in Magha (from the middle of January to the middle of February) by digging a well, which is done in the middle of a small field that he hires, and that usually may be about the fifteenth part of an acre, for which he pays a rent at the rate of about 12 rs. an acre. On this is spread out the old earth, which has been before employed, and which is gathered in heaps during the rainy season. This earth must be clay of the kinds called Karel or Lalki, of which an account has been given among the natural productions; that called Ujarki, although very like the Lalki, will not answer. The earth thus spread out is daily sprinkled with the water drawn from the well, which is usually about 10 or 12 pots, each containing 10 sers or 21 lbs. After it has been thus watered for 10 or 12 days, it is put in cisterns like those used in preparing nitre, and a brine is ex-

tracted by pouring water through it while in the cistern. This brine is then put into an evaporating pan, consisting of a quadrangular plot made of brick and plaster, and subdivided by ridges 3 or 4 inches high into squares of 3 or 4 feet diameter. These little squares are filled in the morning with brine, and in the evening the inspissated liquid is collected into an earthen pot, being swept into a common gutter, which conducts to this vessel. Next morning the whole is put into one or two of the small squares, and in the course of the day the water is entirely evaporated by the action of the sun and wind. If a strong west wind blows the evaporation is completed on the first day. The earth that has been used on any year for being sprinkled is, if possible, kept two or three years in a heap before it is again used. It was said that a well gives annually only about 280 sers (40 s. w. a ser), or 286½ lbs. of this salt, which sells at 25 sers for the rupee, so that a man has only 11 rs. 2 anas, 5 pices, for five months' attendance, for they work from the middle of January until the rainy season commences, which is usually about the middle of June; and the rent and expense of the pans will reduce their gain to 10 rs. at the utmost. They explain this low reward by stating that, except when they dig the well, a little time morning and evening is only employed, and this does not interfere much with the operations of harvest, in which they are all engaged for three months of the time. They are Bindus and Malas, who in the rainy season and early part of winter are employed as boatmen and in fishing. It is probable, however, that as usual in this district they concealed a part of their gain. Some of them, indeed, alleged that their labour produced only 160 sers. The salt is bitter; but is used by the poor as a substitute for sea salt. As such, it is an infringement on the revenue resulting from the monopoly in that article; but it is probably to no great extent.

In the division of Tilothu there is a small manufacture of an impure sulphate of iron, called Kasis, and used in medicine, and by tanners and calico printers. There are in all five furnaces now employed, and each has as managers two partners, who are bound to merchants of Tilothu by advances (Asami). These managers hire people to bring the ore and fuel, and superintend the manufacture. The ore is brought down during the three months of Spring, and the

supply of each kiln requires the labour of 40 or 50 men, whose rude manner of quarrying has been described. It is said, that the whole amount given annually to these men for each kiln does not exceed 10 rs., in which case the 40 or 50 men can only work a short time for each, and probably the same men supply all the six kilns. Even at this rate they would only gain 60 rs. in three months, and either the quantity of ore required must be greater, or they must do other work. They are Kharawars, who retain the manners of those on the table land, but cultivate some wheat and barley round a village in the great recess of Kariyari, and their harvest interferes with the season of mining. For each rupee they deliver about 100 sers (80 s. w. a ser) or 205 lbs. of ore. This ore is exposed to the open air in a heap, and daily watered, until the commencement of the rainy season, when it is mixed with old ore, which has before been repeatedly lixiviated and exposed to the air, and the whole is placed under a shed ready to be used for forming a brine, an operation that is constantly going forward. At night a quantity of this ore, fresh or old, that has been exposed to air and moisture, is put into a large earthen vessel of water, and, after being mixed by stirring, is allowed to stand until morning, when the contents are strained through a pot, in the bottom of which is a hole covered by a bit of broken tile. The ore, which remains in the strainer, is thrown into a heap, which is exposed to the air all the ensuing fair season, and occasionally watered, when it is mixed with some fresh ore as at first mentioned, and is then fit again for use. It would never appear to be exhausted; that is, the whole by long and repeated exposure to the weather, may be converted into Kasis; the new ore being only required to make up the quantity annually thus converted. A cock and spigot to draw off the brine would be a more effectual, and much less troublesome means of separating the insoluble matter; but is far beyond the workmens' progress in the arts. The strained solution is put into another earthen vessel, and allowed to stand until next morning, by which time many impurities have subsided; and from these it is separated by taking it gently up with a cup. The impurities are collected in a separate heap, which after a year's exposure to the air gives much more Kasis than the ore. The solution, thus imperfectly freed from im-

purities, is then evaporated to dryness in three earthen pots placed on one furnace, which consists of two parallel walls of clay, joined above by a covering of the same material, in which there are three circular apertures for the pots. The ends are open; one serving to supply fuel, the other to give vent to the smoke. The evaporation is conducted chiefly in the two extreme pots; and, as it advances, the thickened matter is collected in the central pot, which, when full, is removed, and another put in its place. When cool, the Kasis is formed into balls of a muddy deliquescent substance, the basis of which is sulphate of iron, but this is mixed with alumine, pyrites, and perhaps other impurities. The furnaces are in the midst of extensive forests, so that the fuel costs next to nothing; but the waste of labour in mining and boiling, and the fuel, were these expenses estimated on the European scale, would render the Kasis as dear as silver. The merchants allege, that they give 14 rs. a *man* (82 lbs.) to the manufacturers (Asami), and sell it at 17 rs. to traders, who come from Patna; but the manufacturers acknowledge no such price, and say, that they receive only 25 rs. for 4 *mans*; for in this district no man will confess that he has any gain. The merchants say, that each furnace gives 16 *mans* a year, that is four loads, and the merchant probably advances for no more than one load at a time, so that for three month's use of his capital he has 21 per cent. or 84 per cent. a year. The manufacturer receives 224 rs. a year, of which one-half will defray every possible expense; so that each man may clear about 62 rs. a year; but their style of living seems a good deal higher than what this would afford, so that it is probable, that more is manufactured; but how much I cannot say. According to the merchants, the whole quantity made amounts to 80 *mans*, worth at the export price 1360 rs.; and the actual quantity is probably one-fourth more; yet in the accounts of the exports and imports, which I was able to procure, it was reduced to 15 *mans* at 9 rs. a *man*. The soda of this district is not manufactured, so far at least as I could learn.

EXPORTS AND IMPORTS.—The amount of the exports and imports, as taken from the report of the traders in each division, is of no better authority than the account of Behar; the traders, being exceedingly shy, evidently underrate al-

most every article. Rice is a great article both of export and import. All the eastern and northern parts import this grain; the former because the reservoirs have gone to decay, or have never been sufficiently numerous, the latter partly from the same cause, and partly because the rich inundated parts produce no rice. Barley is sent to Benares. The pulse called Arahar goes chiefly to Moorshedabad. Tobacco comes from Chhapra. Refined sugar (Chini), the coarse sugar (Shukkur), the molasses, and the treacle from the district of Merzapur. The cake extract of sugar-cane is imported from Gazipur in Merzapur, and is sent partly to Beliya in the same district, but on opposite sides of the Ganges, and partly to Patna. The iron imported comes from the Ramgar district. Zinc, copper, lead, and tin, from Patna.

The exports according to the tables considerably exceed the imports, but by no means to an amount adequate to repay the balance of revenue remitted to government, which must annually amount to about 10 lac of rupees. Both imports and exports are no doubt diminished in the tables; and perhaps nearly in the same proportion, but the balance of trade in favour of the district will be greater than stated, owing to the total amount of the imports being much smaller than that of the exports. Even this, however, would fall short of restoring the balance, which is in general of course one way or other kept up; and the two sources, from whence the deficiency is made up, seem to be money remitted to their families by men, who are abroad on service, and what is spent by pilgrims and travellers. I think it probable, that there are at least 12,000 sepoys belonging to this district, and that on an average each man does not send home less than 2 rs. a month, which will give 268,000 rs. a year; and other persons probably send a sum not much smaller. The pilgrims this year, owing to a solar eclipse were much more numerous than usual, but in ordinary years 100,000 at least pass and repass the whole extent of the district; during which, although they beg as much as possible, they must spend at least 200,000 rs. The money spent at Dadri on the immediate frontier, and of which more than a half comes from Vagsar, balances at least, what the pilgrims of this district spend abroad.

The only trade that can be called external is that from Tilothu with the Marhatta country of Ratnapur, in which raw silk, a little cloth, salt, and Manihari goods are exported. They are paid for chiefly in money. The artificers who retail goods in the streets or in shops are as follows :

Soapmakers, 15; makers of lack ornaments, 21; makers of glass ornaments, 22; makers of fireworks, 30; preparers of tobacco, 36; distillers, 37; collectors of palm wine, 38; perfumers, 40; oilmen, 41; preparers of curds, 42; confectioners, 43; parchers of grain, 44; grinders of wheat, 45; mutton butchers, 47; beef butchers, 48; Kumangars, 51; blacksmiths, 54; Kaseras, 57; Thatheras, 58; Rangdhaluyas, 59; potters, 63; cotton cleaners, 67; weavers, 70; tape makers, 73; carpet weavers, 74; string knitters, 76; salt makers, 78.

In Ekwari are three brokers or Dalals, employed in purchasing cloth for merchants. The only proper bankers (Kothwals) reside at Arah, and are branches of two houses at Patna, Baidyonath and Udaya Karnadas, both possessed of unbounded credit: they both discount bills, and give bills for cash. The kind of bankers called Aratiyas at Gaya and Daudnagar in Behar, are here also known by this name. One of them is supposed to have a capital of four lacs of rupees, and the others to have from 20 to 30,000. It is probable that the capitals of those at Arah, at least, are much larger, as they are said to advance almost the whole revenue, especially Sangkar-lal, the chief, who is also the collectors' treasurer. Wherever there is a Tahisildar, he has an agent, who has an office for receiving the money, but he also has a shop where he lends it.

The Surrafs here are on the same footing as in Behar, but in most places none have above 100 rs. capital; and it is in Mohaniya and Tilothu alone, that any one has a decent capital. In the former, one has 1,000 rs., in the other, one has 25 times that amount. I have said that many Surrafs deal also in cloth. Those who live by lending money in Biloti are called Nukudi Mahajans, as in Behar; but in the other divisions they are most commonly known by the name Sau or Sau Mahajan. They are said to have capitals of from 500 to 30,000 rs., and deal as in Behar, but lend chiefly to farmers to be repaid in grain.

The number of weekly markets (Hats or Pethiyas) is still smaller in proportion to the population than in Behar; yet a very great part of the commerce is settled at these assem-

blies. It is there that the Ladu Beparis make most of their sales and purchases; but much less is sold by retail than is done at the markets of Bengal. Here the retail trade is chiefly carried on in shops, which are often not near market places. The number of Gunjes, or marts for exportation and importation by water, is also much smaller, Bindhuliya being almost the only one of consequence, but it is very large. A great part of the export and import trade being carried on by oxen loads, this also is transacted at the weekly markets, and some of these are called Gunjes, although at a distance from any river, and although they possess less import and export trade than some which are called Hato. The application of the two terms seems to be in a great measure arbitrary.

Coins, weights and measures.—Bank notes at Arah are nearly as negotiable as at Patna. and may be considered as at par. If you want cash for a note, you will not pay a higher rate of exchange than if you want a note for cash, that is from $\frac{1}{4}$ to 1 per cent. The banker will not exchange either way without profit, and the notes have not at all entered into the common currency. Gold has almost totally disappeared, for the same reasons no doubt as in Behar. Cowries are current in exchange for copper money, but not where the sum amounts to one copper coin, or Paysa. The milled copper coinage of the Company is current only at Arah. In other places the rude masses of Gerukpur are by far the most common; but there are a few Madhusahi and Sherjungy Paysas equally rude; the latter was probably coined in the time of Sher-shah. The imaginary monies here are the same as in Patna.

The weights vary in almost every town, both in the number of sicca weight contained in each sér, and in the number of sers contained in each man. The most common ser is 44 s. w. or should be nearly $1\frac{13}{100}$ lbs. avoirdupois. No ser is larger than 88 sicca weight, just double of the former. The number of sers contained in the man varies from 40 to 52. The weights are all made of rough stones, and they were lately examined and sealed by orders of Mr. Lock then acting magistrate; but Mr. Turner, the next acting magistrate, is said to have prohibited the practice, and people have since been allowed to make new weights, which have not been examined. It is

generally admitted that the sealing prevented many frauds; but the scales are on the same defective plan that is usual in India, and leave more room for slight of hand than the weights. Nothing is sold by measure except liquids, and the measures are formed of vessels fitted to contain a certain weight of the liquor for which they are intended. As they are seldom, if ever, washed, they would not at any rate answer for selling different liquors.

In every Mauza, as in Behar, there is an established weigher, but none of these can weigh at once more than the eighth of a *man*. There was in the collector's office no standard for the land measure; but the Tahisildars of Shahasram and Chayanpur had poles, which they called three Sekunderi-guz long, and these everywhere in this district are the twentieth part of the bigah allowed in public accompts. At Shahasram the pole of the Tahisildar measured 8 feet $2\frac{1}{8}$ inches, while the Sekunderi-guz of the Kazi, also an official standard, was 2 feet $9\frac{1}{2}$ inches, so that the pole should be 8 feet $4\frac{1}{2}$ inches. According to the former, the bigah should be 27,170 square feet, according to the latter it should be 28,057. I was, however, assured that little or no attention was paid to these standards, and that the owners of the land used their own arm as a standard, reckoning the pole $5\frac{1}{2}$ cubits, which, if they measure fair, will be nearly 8 feet 3 inches. This I have considered as the proper bigah, and it contains a small fraction more than 27,224 square feet. On lands exempted from assessment larger bigahs have been introduced, in order, no doubt, to be of use should a measurement take place; but there can be little doubt that all these lands were granted by the Toral mal bigah, which was formerly in use in the revenue accompts; and 100 of these are only equal to 60 of the present standard. The whole of Pergunah Chayanpur is let to the farmer by a small bigah, containing 11,025 square feet.

The measurers, in using the pole, follow the method adopted in Puraniya. Their skill in geometry may be estimated by the nature of the rule called Surya Mandal, or circumference of the sun, which they apply to all figures, rectilinear or curvilinear, that approach a circular form. They measure round the field in poles, each containing one-twentieth of a bigah; the extent is divided by two; the half is divided into

two portions, in the proportion of two and three; the two portions are multiplied into each other; and the product is divided by 20, which gives the extent in bigahs.

The cloth measures are on the same footing as in Behar. The Company's guz in this district is usually reckoned $17\frac{1}{2}$ Gerahs or 45 inches in length, but there can be no doubt, that it is of the same length with that in Patna, as it depends on the same factory, which shows how carelessly the natives calculate in such matters, there being a difference of one-eighth part between the two computations.

CONVEYANCE OF GOODS.—This district is still less favoured with water carriage than Behar, and the number of boats in proportion is perhaps smaller, nor are any kept for the accommodation of the great in travelling. Those used for the conveyance of goods are of the same kinds as at Patna. From Bindhuliya to Benares, a distance of only about 140 miles, the merchants usually pay 12 rs. for the 100 *mans* (88 s. w. the ser) measured burthen. The weight being one-tenth more than that at Patna, the hire is only one-tenth less than what is usually paid at that city for going to Calcutta; but most of the boats belong to other places, and are only procurable, either by sending to a distance for them, or by waiting until the arrival of some one which has no cargo prepared for her return. The fishing and ferry-boats are no better than those of Patna, and a few canoes are used for both purposes.

The Son is the only torrent, of which advantage has been taken to form floats, each containing about 14,000 bamboos. It is, when the river is at the lowest, from February to May both inclusive, that these are used. In the rainy season the river rises and falls so suddenly, and often rushes with such tremendous force, that it is not navigable, especially in floats. During the rainy season, indeed, commerce is in a great measure at a stand. Owing to the badness of the roads, oxen cannot at that season bring goods to the river side; and as the Ganges is at all seasons navigable, it is not here usual to form large depots in the dry season, to be exported, when the rains commence.

Two great roads pass the whole breadth of the district, but neither is of much advantage to commerce. One of them

is the military road from Calcutta to Benares, and is kept up, as reasonable, by the public. Loaded oxen, and even carts could pass during the rainy season, except immediately after great falls, when many torrents become impracticable; but, except by a few travellers, it is very seldom used at that season, because all the cross roads are then impassable; and, unless depots were formed on its sides during the fair season, nothing could be procured to transmit in the rainy. Besides, were it much frequented in the rainy season, it would be soon impassable, as it contains no hard material, and is merely a line marked by two ditches, from which a little earth is occasionally thrown to fill up ruts, or hollows made by the rain. Even in the best weather the numbers of carriages, that pass any road near towns in England, would render it useless in a week; but carts are here very seldom used for the conveyance of goods by the merchant; nor is their advantage yet so fully understood, as in many places formerly surveyed. Such are however the only roads that can be made in the country; and where it is exempt from inundation, as is the case here, the expense either of making or repairing should be trifling, were it conducted by the owners of the land, with the economy usual in their undertakings.

The other road along the old bank of the Ganges is also a military road from Danapur to Vagsar, and is kept up by a tax of 1 per cent. additional levied on the whole land that is assessed. Some objections, in point of justice, may be raised against this measure: 1st, being chiefly intended as a military road, and of little or no use to commerce, running parallel to a navigable river, its expense should be defrayed from the general revenue of the country. 2dly. Those near it no doubt, if inclined, might take advantage of its use, and they certainly avail themselves of it to a certain degree. These may therefore with some justice be taxed; but why a man at Shahasram or Chayanpur should pay for the support of a road at Arah and Bojpur, more than for one at Calcutta or Madras, cannot be explained. 3dly. The persons who ought to be most able to bear the tax, and who enjoy equally all the benefits of the road, that is, those who possess landed estates exempted from taxes, pay nothing towards the road.

4thly. The road is very indifferently suited even for military purposes, as it is not practicable in the rainy season, and is not carried through between any two great stations.

From Danapur to the boundary of this district, I know, is not at all kept up in the same manner; and towards Benares the collector of this district goes no further with his repairs than the boundary of the Merzapur district; but, whether the magistrate of that jurisdiction keeps the remainder in repair, I do not know. As this is the only public road of communication in the district except the great military road, I have no doubt that the labour of the convicts should be applied to the purpose of its repair; and, if fairly exacted, is fully adequate to keep it in good order, the bridges excepted, and these might be kept up by the tax of one per cent. on the estates in its vicinity. At present the labour of the convicts is wasted as in Behar. If this plan should be adopted, the one per cent. levied on the owners of land in the other parts of the district might be applied to two cross roads, which would be of use to almost every landholder. One would go from Arah to Shahasram by Karangju, and the other to Chayanpur from Binduliya through Jagadispur. At present the cross roads, that is those of chief utility to the people of the district, are perhaps still worse than those of Behar.

Wheel carriages even on the two great roads are very little employed, except by travellers of some rank, and that chiefly for their own conveyance; but sometimes also for their baggage. Horses are not employed for the carriage of goods, but at the inns a few ponies for riding may be hired. Asses and mules are not employed to carry anything, but the linen, fuel, and soda, used by the washermen, to whom these animals entirely belong. Almost the only conveyance procurable for hire in the interior, or even close to the Ganges, consists of oxen, that carry back loads. These are as numerous and good as in Behar.

Porters are only used to carry the baggage of travellers, and both weavers and shoemakers are generally held bound to do this, whenever required by their landlord, who on this account exempts them from ground rent for their huts. It is only through the intervention of the landlords, that European travellers can be supplied, and they still consider

themselves bound, or at least seldom refuse to supply all officers European or native, who are travelling on public business. The ferry-boats are in general very bad, and on the same footing with those in Behar.

Hardar Singha a Kaiastha, and proprietor of a landed estate near Arah, keeps a Sadabrata, and gives one day's food to whatever stranger applies. The Raja of Bhojpur does the same at Dumraong; but it is done in the name of Siva Prasad his brother. The reason of this seems to be, partly that the brother is fond of the employment, which the superintendence gives; and partly economy. If given in the Raja's own name, many insolent mendicants would insist on being kept for four or five days; but they would be considered as unreasonable, were they to insist on this indulgence from a younger brother. The Dewan or steward of the Raja gives also one day's food to all who apply either at a house in Vaysar, or at one in the Karangja division, but out of modesty he does not call these houses Sadabratas (constant vows) but Thaku Varis (the Lord's houses). A religious mendicant, of the order of Ramawats, at Vipur, in the Biloti division, gives food to all strangers that apply. Farther, Abdul Nasur, the owner of a landed estate in Karangja, gives 1 ser of rice to whatever traveller chooses; Bibi Asmut of Shahasram, a Muhammedan lady, gives $\frac{1}{4}$ ser of grain to all Hindus, and feeds all Muslims; and Lala Rajrup a Kaiastha, and Kananga Lala a merchant, both of the same place, give $\frac{1}{4}$ ser of grain to all comers.

The accommodation which travellers can hire is on the same footing as in Behar, only some of the Beniyas, where there are no inns, will give quarters to strangers. On the two great roads are some inns, although often at too great distances for regular stages. At Jehanabad one of brick and stone remains, which is said to have been built by Sher Shah, and is still inhabitable, although where any part has fallen it is only rebuilt with clay.*

END OF SHAHABAD.

* Dr. Buchanan concludes his survey of each district in this abrupt manner.—[E.D.]

A P P E N D I X

The proportion of Inundated Land in the District of Shahabad that is covered during the whole rainy season, that in ordinary years is occasionally covered, and that is exempt from being flooded except in extraordinary years.

Constantly under water or mere barren channels 136 square miles ; Regularly inundated throughout the rainy season 165 ; Liable only to occasional floods but every year covered for some days at least 237 ; Land which in some years is liable to be flooded for two or three days 126 ; Entirely exempt from inundation 3423.

Estimate of the proportion of different classes of society that are employed in agriculture in the District of Shahabad.

Ashraf who do not farm 7257 families ; Ashraf who have farms but do not work 5933 ; Ashraf who have farms, and work with their own hand, but do not plough 31677 ; Ashraf who hold the plough 36531 ; Traders (Bakalics) who have farms 512 ; Traders (Bakalics) who have not farms 7039 ; Artificers (Pauniyas) who live entirely by their own profession 16836 ; Artificers (Pauniyas) who have farms, but do not work them by their own hand, few ; Artificers (Pauniyas) who occasionally cultivate land, either for themselves or for hire 6953 ; Karendagan who plough their own farms 67521 ; Karendagan who take service as ploughmen 32726 ; Karendagan who are day labourers 4540 ; Total families 217525.

Estimate of the population of the District of Shahabad, and of some of the causes by which it is affected.

Sects—Muhammedans 98340 families ; Hindus 1321180 ; Total 1419520 ; *Employments*—Gentry 534899 ; Traders 48660 ; Artificers 197612 ; Ploughmen 638349 ; *Health*—Proportion of those who have adopted inoculation 520562 ; Proportion of those who are annually supposed to have fevers 371713 ; Number of persons who have the leprosy called Kor 3130 ; Number of persons who have the disease called Charka 630 ; Number of persons who have the disease called Filpau 6 ; Number of persons who have the disease called Gheg 17 ; Number of persons who have the disease called Koranda 305 ; Number of marriageable girls remaining single at 16 years of age 1700.

An estimate of the proportion of families in the various parts of the District of Shahabad that consist of certain numbers of persons, with the various rates of expense at which such families live.

Families of 100 to 300 persons spending monthly from 1000 to 2000 Rupees 3 ; Do. of 50 to 100 persons spending monthly from 500 to 700 Rupees 6 ; Do. of 30 to 60 persons spending monthly from 30 to 200 Rupees 236 ; Do. of 21 to 30 persons spending monthly from 30 to 100 Rupees 197 ; Do. of 11 to 20 persons spending monthly from 8 to 50 Rupees 13788 ; Do. of 7 to 10 persons spending monthly from 5 to 40 Rupees 45326 ; Do. of 6 persons spending monthly from 4 to 20 Rupees 56656 ; Do. of 5 persons spending monthly from 3 to 15 Rupees 69115 ; Do. of 4 persons spending monthly from 2 to 10 Rupees 23788 ; Do. of 3 persons spending monthly from 1½ to 6 Rupees 8410 ; Total 217525.

Estimate of the manner in which the people of Shahabad are lodged.

Families that are partly or in whole accommodated in houses built of stone or brick 217 ; In mud walled houses of two stories covered with tiles 2420 ; In mud walled houses of two stories covered with thatch 2275 ; In mud walled huts covered with tiles 14219 ; In mud walled huts thatched with grass 185026 ; In mud walled huts thatched with stubble, sugar-cane leaves, or rushes 11993 ; In huts with walls of hurdles and covered with thatch 1200 ; In huts like bee hives 175 ; Total 217525.

Estimate of the manner in which the people of Shahabad are covered by day and night..

Women who in the cold season generally dress in silk and in the hot season in fine muslin, few ; Women who on high occasions dress in Maldehi cloths mixed of silk and cotton, and in common use cloth of tasar and cotton mixed or coarse muslin, sometimes bleached or dyed, more often neither 10437 ; Women who in full dress use bleached or dyed linen or cloth of tasar and cotton mixed, and on ordinary occasions use unbleached coarse linen 28900 ; Women who on all occasions wear coarse unbleached linen, but their wrapper is of full breadth 32650 ; Women who use only a narrow wrapper of unbleached cotton 145538 ; Men who in full dress use shawls or silk and woollen cloth, and in common use bleached linen 357 ; Men who always use bleached linen, but have no shawls silk nor broad-cloth 29808 ; Men who only use bleached linen in full dress 32133 ; Men who use unbleached cotton cloth alone, but the cloth is of a full size 74300 ; Men who use unbleached cotton cloth alone, but the cloth is very small, and is called Langgoti and Bhogoya 80918 ; Families the heads of which sleep on the best kind of bedsteads (Palang) 121 ; Families the heads of which sleep on worse bedsteads (Char-payi) with turned feet 27164 ; Families the heads of which sleep on very coarse wooden bedsteads (Khatiya) 111542 ; Families which in the cold season sleep on blankets or sutrunjis, and in summer on mats, few ; Families which in summer sleep on coarse mats made of reeds, grass, straw or khajur or palmira leaves, and in winter on straw 78698 ; Families that anoint themselves once or twice a week 61535 ; Families that use oil for unction only on great occasions 154990 ; Families that use essences on great occasions 1000.

An estimate of the manner in which the people of Shahabad are fed.

Families that eat meat daily 75 ; Families that eat meat from 2 to 10 times a month 19931 ; Families that sacrifice on great occasions only 148666 ; Families that cannot afford meat on any occasion or that reject its use 48853 ; Families that have as much fish as they please, average perhaps from 120 to 150 times a year 215 ; Families that have fish daily in the cheap season alone, and in the dear season procure it only some times, perhaps in all from 90 to 120 days in the year 41518 ; Families that have only what fish they can catch themselves, or at least purchase on high occasions only 136617 ; Families that reject fish 39175 ; Families that can use Ghuu whenever they please 17900 ; Families that use milk daily 59441 ; Families that use milk in the cheap season often, and in the dear season on high occasions 75530 ; Families that use milk on holidays 82554 ; Families that seldom procure milk, few ; Families that use sugar or sweet-meats when they please 11597 ; Families that use sugar or sweet-meats one or two times in the week 51047 ; Families that procure them on holidays 154881 ; Families that use daily pulse for curry 160896 ; Families that use pulse for curry frequently 56629 ; Families that use cultivated vegetables daily 8919 ; Families that use cultivated vegetables often 66143 ; Families that use cultivated vegetables seldom 142463 ; Families that can afford to purchase foreign spices sometimes or always 106764 ; Families that procure oil in abundance 3887 ; Those that have a moderate allowance of oil 32380 ; Those that procure oil scantily 95223 ; Families that procure oil only occasionally or in very small quantities 86035 ; Families that have salt in abundance 6247 ; Families that procure a stinted allowance of salt 47773 ; Families that procure a scanty allowance of salt 113464 ; Families that procure salt in very small quantities 59041 ; Families which use rice two times daily, with wheaten cakes occasionally as a variety 58158 ; Families which use rice in harvest two times, in other seasons wheat or other coarse grains 18073 ; Families which once a day use boiled rice, and once wheaten cakes 89028 ; Families which use in general wheat, or other coarse grains, and procure rice on some occasions only 51781 ; Families which for a part of the year use Mahuya or other substitutes for grain 485 ; Families which use two or three curries daily or frequently 8919 ; Families which use two or three curries five or six times a month 56930 ; Families which use only one curry a day, except on great occasions 151676.

An estimate of the extent to which the people of Shahabad indulge in various intoxicating substances.

Men who are addicted to palm wine 46670 ; Men who are addicted to distilled liquors 91645 ; Men who use opium 790 ; Men who smoke Gangja 5507 ; Men who use Siddhi or bhang 8790 ; Men who use Charas, few ; Men who smoke prepared tobacco in abundance 124885 ; Men who cannot smoke abundance of any kind of tobacco or who reject its use 92640 ; Women who smoke prepared tobacco, few ; Men who chew tobacco 146399 ; Women who chew tobacco 149070 ; Men who use snuff 7440 ; Men and women who have betle in abundance 34364 ; Men and women who are stinted in betle 91133 ; Men and women who seldom procure betle 92028.

An estimate of the manner in which the people of Shahabad are supplied with fuel and light.

Fire-wood 49651 families ; Bushes and reeds, few ; Straw, husks and the stems of various crops, few ; Cowdung sometimes mixed with husks 166875 ; Mustard seed oil 55269 ; Linseed oil usually mixed with that of Poppy seed 112250 ; Sesamum oil 265 ; Castor oil or that of the Ricinus 23670 ; Oil of Safflower or Carthamus 9705 ; Poppy seed oil 9273 ; Koranda oil expressed from the seed of the Bassia 1748 ; Oil of cotton seed 5345 ; Families which burn a lamp all night 1305 ; Families which burn a lamp to midnight 18512 ; Families which burn a lamp three hours 3035 ; Families which burn a lamp from $\frac{3}{4}$ to $1\frac{1}{4}$ hours 69432 ; Families which burn a lamp when they take supper 123938 ; Families which burn torches or straw at supper 1308.

An estimate explaining the extent of luxury in attendance and conveyance in the district of Shahabad.

Number of tame elephants 16 ; Camels 18 ; Saresa or other large horses 525 ; Ponies of the kind called Tatus 3900 ; Rath or four-wheeled carriages drawn by oxen 14 ; Carriages with two wheels drawn by one horse and called Ekka 21 ; Majholi and Raharu two wheeled carriages drawn by oxen 43 ; Palanquins 896 ; Male free domestic servants 2820 ; Female free domestic servants 265 ; Poor women who bring water to wealthy families 7100 ; Men slaves entirely domestic 720 ; Men slaves partly employed in agriculture 850 ; Men slaves employed entirely in agriculture 3765.

Explanatory of the state of education in the district of Shahabad.

Men born for the use of the pen.

Men fit to act as writers born in the division 7045 ; Employed in the district 2344 ; Employed abroad 1166 ; Not employed 3650 ; Strangers employed here as writers 116 ; Strangers waiting for employment 25. *Men born for the profession of arms*—Men belonging to the district employed in the regular army 4680 ; Employed in the police or revenue 2095 ; Employed abroad in the police or revenue 2651 ; Not employed 44276 ; Strangers employed in the police or revenue 320 ; Strangers waiting for employment, few.

List of the Hindu academicians in the district of Shahabad.

Grammar, Law, and Legend 10 ; Do. do. do. 8 ; Grammar 12 ; Do. 15 ; Do. and Medicine 10 ; Do. and Legend 15 ; Do. Law and Magic 12 ; Grammar 20 ; Do. Metaphysics and Law 10 ; Grammar and Poetry human 10 ; Astrology 10 ; Grammar 15 ; Do., Metaphysics, Law, Legend, and Poetry human 20 ; Grammar 15 ; Do. and Poetry human 10 ; Grammar and Law 10 ; Grammar, Law, and Legend 12 ; Astrology 4 ; Medicine 8 ; Grammar, Law, and Legend 4 ; Grammar and Law 5 ; Grammar 2 ; Do. 4 ; Do., Law, and Legend 4 ; Do. Do. Do. 5 ; Total 250.

Explaining the manner in which the cultivated lands of the District of Shahabad are employed.

Number of houses 33350; Fruit trees 1269000; Bamboos 510; Kitchen gardens 3850; Vegetables in the fields 1130; Broadcast sathi or serha, summer rice, by itself 150500; Do. Do. Do. followed by Masur 5210; Do. Do. Do. followed by Masur mixed with Linseed 3530; Do. do. do. followed by pease 15450; Do. do. do. followed by But or Chana 12840; Do. do. do. followed by But mixed with Linseed 6950; Do. do. do. followed by Barley 12680; Do. do. do. followed by Barley mixed with But 1350; Do. do. do. followed by Wheat 8080; Do. do. do. followed by Tori 700; Do. do. do. followed by Linseed 100; Do. do. do. followed by China 900; Do. do. do. followed by Rarhiya Cotton 330; Do. do. do. followed by Rarhiya Cotton mixed with Masur 430; Do. do. do. followed by Rarhiya Cotton mixed with pease 300; Do. do. do. followed by Rarhiya Cotton mixed with pease and Tori 700; Do. do. do. followed by Rarhiya Cotton mixed with Tori 350; Do. do. do. followed by Poppy mixed with Safflower 200; Broadcast winter rice by itself 881400; Do. do. followed by Khesari sown among the stubble 166200; Do. do. followed by Kesari mixed with Linseed sown among the stubble 55500; Do. do. followed by But sown among the stubble 23300; Do. do. followed by Wheat sown among the stubble 1300; Do. do. followed by Linseed sown among the stubble 5000; Do. do. followed by China 100; Transplanted winter rice by itself 342440; Transplanted winter rice followed by Khesari sown among the stubble 94050; Do. do. followed by Khesari mixed with Linseed sown among the stubble 48400; Do. do. followed by But sown among the stubble 8950; Do. do. followed by Wheat sown among the stubble 500; Do. do. followed by Linseed sown among the stubble 6550; Spring rice or Bora 450; Tangni by itself 4090; Tangni followed by pease 3850; Do. followed by Barley 7740; Do. followed by Wheat 4280; Do. followed by Tori 1200; Do. followed by Sarso 1570; Do. followed by Rarhiya Cotton 150; Do. mixed with Arahara 3600; Do. mixed with Cotton (Baresa) 700; Do. mixed with Cotton, Baresa, and Arahara 70; Do. followed by Poppy mixed with Safflower 1417; Broadcast Maruya mixed with Arahara 1900; Do. do. mixed with Baresa Cotton 100; Do. do. followed by Rarhiya Cotton mixed with Tori 100; Transplanted Maruya by itself 6200; Do. do. followed by pease 3300; Do. do. followed by China 60; Do. do. followed by Barley 9650; Do. do. followed by Wheat 5100; Do. do. followed by Sarso 1630; Do. do. followed by Carrots 10; Do. do. followed by Vegetables 30; Do. do. followed by Rarhiya Cotton 250; Do. do. followed by Poppy mixed with Safflower 1455; Kodo Bhada by itself 8070; Do. do. followed by pease 800; Do. do. followed by But 2520; Do. do. followed by But mixed with Linseed 50; Do. do. followed by Linseed 40; Do. do. mixed with Arahara 15830; Do. do. mixed with Arahara and Patuya or Nagarjun 400; Kodo by itself 40850; Do. mixed with Arahara 88250; Do. mixed with Arahara and Patuya 9300; Do. mixed with Arahara and Til 8350; Sawang by itself 6600; Do. followed by Masur 750; Do. followed by pease 1750; Do. followed by But 1900; Do. followed by But mixed with Linseed 400; Do. mixed with Arahara 5200; Do. mixed with Arahara and Urid 1200; Do. mixed with Urid 100; Do. followed by Barley 1150; Do. followed by Wheat 3300; Do. followed by Tori 300; Do. followed by Linseed 400; Maize by itself 6830; Do. followed by pease 7500; Do. followed by Barley 12985; Do. followed by Wheat 14010; Do. followed by Wheat mixed with Sarso 15; Do. followed by Sarso 1870; Do. followed by China 40; Do. followed by Rarhiya Cotton 400; Do. followed by Tobacco 80; Do. followed by Poppy mixed with Safflower 1765; Do. mixed with Arahara 32650; Do. mixed with Arahara and Baresa Cotton 275; Do. mixed with Baresa Cotton and Ricinus 400; Janera (Masuriya) by itself 15200; Do. mixed with Kodo 75; Do. mixed with Arahara 50; Do. mixed with Arahara and Ricinus 50; Do. mixed with Urid 400; Do. mixed with Urid and Til 450; Do. mixed with Mung 200; Do. mixed with Mothi and Til 1000; Bajra by itself 100; Do. mixed with Mothi 1700; Do. mixed with Urid 850; Do. mixed with Til 450; Gudali by itself 50; China 300; Do. Hathiya by itself 320; Do. do. mixed with But 600; Do. do. mixed with Rayhi or Lahi 500; Do. do. mixed with Safflower 100; Do. do. mixed with Ricinus 40; Wheat by itself 367250; Do. mixed with But (Gochana) 61100; Do. mixed with Barley (Gujal) 800; Do. mixed with Sarso 9490; Do. mixed with Lahi or Rayi 5000; Do. mixed with Linseed 6450; Barley by itself 238410; Do. mixed with pease (Jakerao) 13450; Do.

mixed with But (Jaoberra) 58700; Do. mixed with Sarso 650; Do. mixed with Rayi 10500; Masur by itself 80200; Do. mixed with Linseed 85300; Do. mixed with Linseed and Sarso 250; Pease (Sugiya) by themselves 120100; Do. (Kabali) by themselves 203200; Do. (Dabli) by themselves 50800; Do. (Kabali) mixed with Sarso 400; Khesari by itself 30; Arahar by itself 2300; Do. mixed with Kulthi 5400; Do. mixed with Urid 3050; Do. mixed with Mothi 4100; Do. mixed with Til 100; Urid Bhadaï by itself 9100; Urid Aghani by itself 3750; Urid sown in the mud without culture 600; Kulthi by itself 54425; Mothi by itself 19550; Mung by itself 2185; But by itself 271400; Do. mixed with Lahi or Rayi 12500; Do. mixed with Linseed 163650; Do. mixed with Linseed and Safflower 500; Tori by itself 22380; Sarso by itself 11000; Rayi sown in the mud without culture 9000; Linseed by itself 7600; Til Bhadaï by itself 730; Til Aghani by itself 540; Tobacco by itself 1065; Do. mixed with Murai 515; Betle leaf 24; Sugarcane Mango 880; Do. Barukha 580; Do. Reongra 620; Do. Sarotiya 700; Do. Bhorongga 850; Do. Kewa 50; Do. Bhurli 300; Cotton (Baresa) by itself 40; Do. do. mixed with Urid 40; Do. (Rarhiya) by itself 4905; Do. do. mixed with Masur 4390; Do. do. mixed with pease 5000; Do. do. mixed with pease and Sarso 7850; Do. do. mixed with Sarso 700; Do. do. mixed with Sarso and Safflower 100; Indigo by itself Phaguniya Bawog 650; Do. do. Ashariya Bawog 1 year 12200; Do. do. do. 2 years 11700; Do. do. do. 1 year 1350; Do. do. do. 2 years plant and seed 1300; Indigo by itself Kartika Bawog 200; Do. do. do. 1 year 50; Do. do. do. 2 years 50; Poppy by itself 300; Do. mixed with Safflower 7665; Safflower by itself 100; Carrots by themselves 410; Do. followed by Onions 33; Potatoes by themselves 225; Shukurkund 520; Onions 230; Garlic 82; Ajoyan sown in the mud without culture 600; Saongph by itself 25; Jira by itself 590; Do. mixed with Ajoyan 265; Do. mixed with Dhaniya 253; Do. mixed with Mangrela 20; Ricinus (Baghreng) 910; Do. (Chanaki) 935; Seedling Land by itself 40651; Total 4402560.

General Abstract of the value and produce of lands occupied by farmers who cultivate with the plough in the District of Shahabad.

Fruit trees value of fruit in Rupees 350000; Bamboos value cut annually in Rupees 1230; Vegetables, &c. in gardens and fields value in Rupees 41006; GRAIN—Rice—Quantity in Mans 7366347; Value in Rupees 4709362; Quantity remaining for consumption after deducting seed 6776085. *China, Tungni, Sarang, Maruya, Maize, Kodo, Bajra and Jenara*—Quantity in Mans 968436; Value in Rupees 520285; Quantity remaining for consumption after deducting seed 943859. *Wheat and Barley*—Quantity in Mans 3269325; Value in Rupees 2647742; Quantity remaining for consumption after deducting seed 2828238. *Pulse*—Quantity in Mans 4480742; Value in Rupees 2707708; Quantity remaining for consumption after deducting seed 3986935. *Sarso, Tori, Lahi, Linseed, Til, Poppy Seed, Safflower Seed and Ricinus*—Quantity in Mans 365487; Value in Rupees 347513; Quantity remaining for consumption after deducting seed 352576. *Sugarcane*—Quantity in Mans of extract 42217; Value in Rupees 6435. PLANTS FOR MAKING THREAD AND ROPE—*Patuya*—Quantity in Mans 1136; Value in Rupees 1907. *Cotton*—Quantity of Mans 67468; Value in Rupees 237919. PLANTS FOR SMOKING AND CHEWING—*Betle leaf*—Value in Rupees 3600; *Tobacco*—Quantity of Mans 5087; Value in Rupees 9765. *Opium*—Quantity of Mans 1201; Value in Rupees 83231. PLANTS USED FOR DYING—*Indigo*—Value in Rupees 66474. *Seed*—Quantity in Mans 1125; Value in Rupees 3814. *Safflower flower*—Quantity in Mans 779; Value in Rupees 4544. MEDICINE—*Mangrela*—Quantity in Mans 6; Value in Rupees 20; Quantity remaining for consumption after deducting seed 5. Total value of each Thanah as follows—Arah 1493299; Biloti 895341; Dumraong 1341029; Ekwari 1067228; Karangja 963124; Baraong 1160931; Shahasram 768525; Tilothu 298970; Mohaniya 1582296; Ramgar 1274200; Sangyot 953159; Table land 208311; Grand Total Rupees 12006417.

Estimate of the quantity of milk procured by the owners of cattle in the district of Shahabad.

	Cows.					Buffaloes.					Total.	
	Total number.	Number giving milk.	Average yearly produce of each cow in sers of 80 Sa. Wt.	Total milk in <i>mans</i> and sers.	No. of sers of milk sold for one rupee.	Total value of milk in rupees and anas.	Total number.	Number giving milk.	Average yearly produce of each buffalo in sers of 80 Sa. Wt.	Total milk in <i>mans</i> and sers.	No. of sers of milk sold for one rupee.	Total value of milk in rupees and anas.
Arnh . . .	35070	77535	285	124936 35	32	156171 1	1000	500	495	6187 20	45	5500 ..
Biloi . . .	44450	22225	172	95567 20	54	70790 11	2000	1000	343	8575 ..	46	7456 8
Dumraong . . .	39960	19980	184	91908 ..	46	79920 ..	1500	750	316	5925 ..	32	7406 4
Elkwar . . .	101660	50830	220	279565 ..	62	180364 8	2000	1000	422	10550 ..	52	6806 7
Karanga . . .	33300	16650	165	68681 10	63	43607 2	1200	600	405	6075 ..	51	4764 11
Baurang . . .	32000	16000	87.	34800 ..	33	42181 13	1000	500	232	2900 ..	35	3314 4
Shaharum . . .	31930	15965	80	31930 ..	30	42573 5	600	300	400	3000 ..	32	3750 ..
Tilothu . . .	9600	4800	100	12000 ..	28	17142 13	500	250	400	2500 ..	32	3125 ..
Mohaniya . . .	15350	7655	110	21051 10	34	24766 2	1000	500	560	7000 ..	34	8235 4
Ramgar . . .	29140	14570	80	29140 ..	32	36425 ..	2600	1300	320	10400 ..	51	8156 14
Sangrot . . .	20500	10250	100	25625 ..	28	36607 2	1000	500	480	6000 ..	28	8571 6
	392960	196460	..	815204 35	..	730549 9	14400	7200	..	69112 20	..	67086 10
Additional cows in Dumraong would give	66600	33300	184	153180 ..	46	133200 ..						
Do. Karanga do.	92500	46250	165	190781 10	63	121130 15						
Do. Tilothu do.	35200	17600	100	44000 ..	28	62857 2						
Total additional	194300	97150	..	387961 10	..	317188 1						

Estimate of the Live Stock in the District of Shahabad.

Cows belonging to the high casts 157460; Cows belonging to tradesmen 107030; Cows belonging to farmers 129870; Bulls reserved for breeding 3240; Bulls wrought in the plough, belonging almost entirely to the high casts 15400; Oxen used in wheel carriages employed only for conveying passengers 28; Do. used in carts employed sometimes for carrying passengers and sometimes for carrying goods 261; Do. used for carrying back loads belonging to traders 7650; Do. used both in the plough and for carrying loads or to draw carts 14050; Do. used in machinery 2995; Do. used in the plough alone belonging to the high casts 286690; Do. used in the plough alone belonging to tradesmen 28105; Do. used in the plough alone belonging to mere farmers 226855; Buffaloes used in the plough 245; Milk Buffaloes 16800; Goats grown females 16400; Sheep called Garar breeding females 35350; Swine total 27600; Asses. 1015; Total value 6341042. Cows in Dumraong according to the rate between males and females in Biloti 66600; Do. in Karangja according to the rate in Ekwari 92500; Do. in Tilothu according to the rate in Ekwari 35200; Total cows in those three divisions 194300; Total value in do. 863650; Cows to be added to those stated in the table 82860; Value in Rupees 380849.

Estimate of the proportion of rent in the District of Shahabad paid by the high castes, dealers, artificers, and ploughmen; and of the proportion of the ploughs held by their owners or men of their families, or by hired servants or slaves, &c.

Rent paid by high casts—Arah 48-64; Biloti 40-64; Dumraong 29-64; Ekwari 40-64; Karangja 24-64; Baraong 32-64; Shahasram 36-64; Tilothu 22-64; Mohaniya 32-64; Ramgar 40-64; Sangyot 40-64. Rent paid by merchants or shopkeepers and by artificers—Arah 4-64; Biloti 4-64; Dumraong 3-64; Ekwari 4-64; Karangja 3-64; Baraong 4-64; Shahasram 6-64; Tilothu 5-64; Mohaniya 6-64; Ramgar 2-64; Sangyot 2-64. Rent paid by ploughmen or karindagan—Arah 12-64; Biloti 20-64; Dumraong 32-64; Ekwari 20-64; Karangja 37-64; Baraong 28-64; Shahasram 22-64; Tilothu 37-64; Mohaniya 26-64; Ramgar 22-64; Sangyot 22-64. Ploughs held by persons who rent land and have stock—Arah 48-64; Biloti 32-64; Dumraong 48-64; Ekwari 40-64; Karangja 24-64; Baraong 44-64; Shahasram 48-64; Tilothu 48-64; Mohaniya 44-64; Ramgar 40-64; Sangyot 24-64. Ploughs held by servants or slaves—Arah 16-64, Biloti 32-64; Dumraong 16-64; Ekwari 24-64; Karangja 40-64; Baraong 20-64; Shahasram 16-64; Tilothu 16-64; Mohaniya 20-64; Ramgar 24-64; Sangyot 40-64. Proportion of rent farmed—Arah 48-64; Biloti 64-64; Dumraong 48-64; Ekwari 60-64; Karangja 56-64; Baraong 1-64; Shahasram, few; Mohaniya 56-64; Ramgar 48-64; Sangyot 56-64. Proportion of rent collected by stewards—Arah 16-64; Dumraong 16-64; Ekwari 4-64; Karangja 8-64; Baraong 63-64; Shahasram 64-64; Tilothu 64-64; Mohaniya 8-64; Ramgar 16-64; Sangyot 8-64. Proportion of rent paid in money—Arah 48-64; Biloti 52-64; Dumraong 40-64; Ekwari 8-64; Karangja 16-64; Baraong 2-64; Shahasram 8-64; Tilothu 8-64; Mohaniya 16-64; Ramgar 8-64; Sangyot 8-64. Proportion of rent arising from a division of crops—Arah 16-64; Biloti 12-64; Dumraong 24-64; Ekwari 56-64; Karangja 48-64; Baraong 62-64; Shahasram 56-64. Tilothu 56-64; Mohaniya 48-64; Ramgar 56-64; Sangyot 56-64.

An estimate of the number of cattle allowed for each plough in the different divisions of the Shahabad District.

Number of ploughs wrought by 4 oxen in Arah 42-64; Number of bigahs cultivated by 1 plough in do. 38. Do. do. by 4 oxen in Biloti 48-64; Do. bigahs cultivated by 1 plough in do. 30 to 38. Do. do. by 4 oxen in Dumraong 48-64; do. bigahs cultivated by 1 plough in do. 30 to 38. Do. do. by 4 oxen in Ekwari 56-64; do. bigahs cultivated by 1 plough in do. 29. Do. do. by 4 oxen in Karangja 38-64; do. of bigahs cultivated by 1 plough in do. 29. Do. do. by 4 oxen in Baraong 52-64; do. of bigahs cultivated by 1 plough in do. 30. Do. do. by 4 oxen

24 ; 35. Makers of tubes for smoking tobacco 3 ; 36. Rozkush 98 ; 37. Distillers of spirituous liquors 112 ; 38. Pasis who collect palm juice 340 ; 39. Shops for retailing palm wine 17 ; 40. Gandhi 2 ; 41. Oilmen, houses 2780 ; Do. mills 2880 ; 42. Preparers of milk and butter 2590 ; 43. Confectioners (Halwais) 588 ; 44. Grain parchers 1845 ; 45. Flour grinders 120 ; 46. Nanwais or bakers 8 ; 47. Chik or mutton butchers 57 ; 48. Beef butchers 41 ; 49. Comb makers 15 ; 50. Turners 19 ; 51. Kamangurs 7 ; 52. Carpenters 727 ; 53. Carpenters and blacksmith 1245 ; 54. Blacksmiths 895 ; 55. Horse shoers 21 ; 56. Cutlers 21 ; 57. Coppersmiths called Kaseras 41 ; 58. Do. called Thathera 63 ; 59. Workers in tin 27 ; 60. Gold and silver-smiths 840 ; 61. Sondhoyas 2 ; 62. Stone cutters 71 ; 63. Potters 910 ; 64. Brick makers 5 ; 65. Bricklayers 57 ; 66. Lime burners 12 ; 67. Cotton beaters 668 ; 68. Dyers 119 ; 69. Weavers of cloth of Tasar silk and cotton mixed, houses 60 ; Looms 90 ; 70. Cotton weavers, houses 7025 ; Looms 7950 ; 71. Women who flower cloth 20 ; 72. Chints makers 3 ; 73. Cotton tape weavers 2 ; 74. Carpet weavers 30 ; 75. Blanket weavers 530 ; 76. Patwars 131 ; 77. Boilers for making nitre 75 ; 78. Makers of Surya pakka salt 70 ; 79. Furnaces for preparing kasis 6.

Estimate of the Exports and Imports of the Shahabad District.

Rice in the husk, Exports Rupees 21363 ; Imports Rupees 3021. Rice cleaned by boiling, Export 1172 ; Import 35340. Rice cleaned without boiling, Export 117180 ; Import 10222. Wheat, Export 232210 ; Import 979. Barley, Export 13906. Jaokerao, Export 363. Aarahar, Export 7699 ; Import 160. Mung, Export 100. Urid, Export 1800 ; Import 1000. Khesari, Export 5063 ; Import 1036. Masur, Export, 29128. Chana or but, Export 128993 ; Import 222. Matar or pease, Export, 21266. Lahi or mustard, Export 3350 ; Import 324. Linseed, Export 2115 ; Import 200. Jira seed, Export 12000. Til, Export 240 ; Import 30. Cocanuta, Import 138. Bettlenut, Import 3605. Tobacco, Import 10459. Sugar or Chini, Import 3956. Shukkur, Import 625. Molasses, Import 750. Treacle, Import 117. Cake extract of sugarcane, Export 4738 ; Import 2671. Salambi salt, Import 5417. Pangga salt, Import 100128. Sea salt, Import 24570. Cotton wool, Import 25366. Cotton with the seed, Export 25147 ; Import 8320. Iron, Import 19474. Iron vessels, Import 200. Zinc, copper, lead, and tin, Import 5258. Vessels of brass and bell-metal Export 2500 ; Import 10645. Pesari goods, Export 1000 ; Import 10050. Paper, Export 36150. Betle leaf, Import 2950. Sajimati, Import 1805. Rehemati, Import 200. Bher khari, Import 183. Bhang or Gangja, Import 1000. Mauhuya flowers, Import 2400. Small timber and bamboos, Export 2100. Woollen and cotton carpets, Export 2000 ; Import 850. Blankets, Export 2000. Cotton cloth, Export 204000 ; Import 20200. Chints and Kharuya, Import 3950. Silk cloth, Maldehi, Import 4350. Cloth of Tasar silk and cotton mixed, Import 2550. Gold and silver lace, Import 300. Essences, Import 550. Shoes, Import 400. Manihari goods, Export 150 ; Import 1170. Cotton thread, Export 800. Opium, Export 83231 ; Import 742. Nitre, Export 1050. Ghlu, Export 16063 ; Import 2600. Oil, Export 2722. Turmeric, Import 430. Dry ginger, Import 400. Vegetables, Import 1000. Onions, garlic, and capsicum, Import 100. Lime, Export 8500. Sackcloth rags, Import 5429. New sackcloth, Export 50 ; Import 460. Buffaloes, Export 163. Oxen, Import 21925. Cocoons, Export 3000 ; Import 5000. Tasar silk Export 5000. Lack or lali, Export 120. Kasia, Export 135. Dhuna, Export 400. Kath or Catechu, Export 900. Chironji, Export 120. Stones, Export 500. *Total Exports Rupees 995132 ; Total Imports Rupees 365177.*

ASIATIC SOCIETY

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